The Builder.

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Hotel de Ville, Audenarde: Fireplace (Pugin Studentship, R.I.B.A., 1901).—By Mr. H. W. Cotman ..... *Double-Page Ink-Photo.*
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The Unhappy Antiquities of Palestine.

IN England very little is known about the terrible devastations in the historic monuments of the nearer East, which are at present being perpetrated wherever that strange anomaly of these latter centuries—the Turkish Government—holds sway. Palestine, as an archæological province, has been too much ravaged by powerful contending races all through its history to allow of any very complete monuments or monumental towns to survive from any particular period. But on its eastern border, across the Jordan, two or three very remarkable ancient cities survived as deserted ruins of the Roman period until a few years back. And they survived in a condition which was simply amazing both for intactness and monumental importance. Now, alas! they are almost quite cleared away by the newly invented and ingenious Turkish system of importing colonists into such regions, and selling them the sites of famous historic towns—the ruins of which are found to be admirably adapted as stone quarries. Two of these splendid old Romano-Greek cities call for special mention at the present moment—Gerasa (Geraen) and Ammân (Philadelphia), two cities of the Decapolis, or ten-city league of Classic times, on the east side of the Jordan, in the hill country which separates Palestine from the still unexplored Syrian desert. A reference to the plans published in "Baedeker" will show how important the buildings were which covered the city sites, and the numerous photographs which have been published at different times during the past twenty years (for instance in L. Oliphant's "Land of Gilead") are sufficient evidence of the extraordinarily preserved details of theatres, temples, basilicas, and various public buildings which, until recently, remained in a state of untouched neglect which rendered such remains far more interesting than the Forum of Rome or the Acropolis of Athens.

Now, unhappily, these most interesting cities (like an unburied Pompeii) exist no more. The latest accounts from various travellers give the same sad result. Gerasa is occupied by a band of colonists from Bosnia (Mohammedans dissatisfied with an Austrian administration), and they are pulling down the Roman ruins wholesale, and the columns of the famous "street of columns" are being removed, to some extent, for the purpose of replacing the injured columns of the great Mosque of Damascus. The Roman masonry is otherwise being broken up to serve for garden walls and ordinary mud-hut architecture. The marvellously-preserved carving, which has survived fifteen centuries of Byzantine and Arab carelessness, is now being hacked off the squared stones in order to fit them for insertion in a Turkish "Khan" or "hareem" wall. In Ammân the destruction of the classic city is even more complete; very few of the public buildings now remain, and the columns of the "street" are being thrown down for the purpose of breaking up into small pieces for enclosure walls. The "Circassians" as these colonists call themselves, act in a methodical manner, and they are gradually eating through the city. They employ the curious carts of Turkish peasants, with the solid wheels, for transporting the broken up remains. The famous theatre of Ammân is now quite gone; the temples, in fact, the city, as a monument of the early centuries has completely disappeared, and the very few tourists who visited it during the past few years were privileged in seeing an extraordinarily preserved Classic town, which has since been swept away.

Nothing can now be done to preserve Ammân and Gerasa, but their fate suggests what threatens nearly all the most famous monumental remains in Turkey. Can anything be done to arrest the Turkish Destroying Angel (or perhaps we may say vulture). The Turk has discovered that there is something to be made out of an increased population, and so he invites his co-religionists from the Balkans, the Caucasus, or Algeria—where they "suffer" the "persecution" associated with a Christian domination; and the deserted districts of Syria or Asia Minor, which teem with the monumental remains of past civilisations, afford an excellent squatting ground for these comparative savages. The promoters and prospectors of these colonies naturally seize on such sites as have the original advantage of good water, an air of former cultivation, and a ready-made quarry of old building stone. In this way we may conclude that, within a measurable time, all the most famous ancient sites will be converted into the more or less permanent settlements of the "Circassians," as these colonists are termed, whether they come from Algeria or Herzegovina. To the archæologist and historical student such a state of things is sufficiently deplorable, but what can be done? The case seems hopeless; still, an international protest might perhaps be set on foot to induce the Constantinople authorities to use some discretion in encouraging the wholesale destruction of the monuments of the different countries constituting the Ottoman Empire. The English archæological societies should surely not find such an enterprise outside the scope of their institution, and the Russian Imperial Archæological Institute would doubtless co-operate.

Much still remains in these countries to preserve and protect. Palmyra will be threatened before long; it possesses abundant water and heaps of old masonry suitable for building Circassian "houses." Surely it is worth while trying to preserve such a place.

The beginning of a transformation is taking place in Turkey. Bolstered up by the flattery and "moral support" of the European Powers, the warlike savagery of the race tamed by so many years of peace, and by the introduction of railways, telegraphs, and the general machinery of civilisation, the modern Turks are displaying the first gleams of an intelligent desire to develop the resources of their country for their own benefit. Within the last year or two the Sultan has inaugurated this new system by laying claim to the whole valley of the Jordan and the whole of the Dead Sea as his personal property. Title-deeds, or "cushans," are being rigorously inquired into on all hands, and the Mohammedan legal profession is in a fair way to become as important as the military system of former days. All the mineral riches of Palestine and Syria are now being jealously guarded as soon as discovered; and foreign enterprise, which is

continually being offered for the development of these riches, is viewed with the utmost hostility. The English railway started to run from Haifa to Damascus some eight years ago has been nipped in the bud; and as part of this new system of setting the Mohammedan house in order, an influx of colonists is being encouraged from those fringes of the European world where Mohammedanism is recoiling from the distasteful manners and customs, and modern ideas, of civilisation. Every steamer to Beyrout brings whole families of Algerines, Tunisians, or Albanians, and these people find their way into the *hinterland* and serve to swell the forces of Mohammedan obstructiveness against Western enterprise and influence. From any point of view except that of archæology such a state of things would be merely curious, but as it involves the destruction of some of the most interesting historical monuments ever erected, the disaster must be considered the greatest of the kind the world has seen, more especially considering that at the present day it ought to be so completely prevented.

The first suggestion for this new Turkish system of colonisation probably originated in the days when the English sentiment for "restoring" the Jews to Palestine was at its height in the seventies and eighties. Even then the Turks, who looked upon the Jews as very unwelcome strangers, began to consider the advisability of meeting this unavoidable difficulty by the usual oriental expedient of pitting one race against another, and so wherever the Jews were settled by foreign influence the Turks have started a "Circassian" colony. Cæsarea on the coast was one of the first to be founded, and the Roman ruins and the interesting remains of the crusading kingdom have been broken up to build the squalid "Circassian" huts with thatched roofs, and the rough walls of straggling gardens. And this is the last fate of the vestiges of that classic civilisation which has been the theme of study and "renaissance" all through the centuries of the immediate past. How little Volney, De Vogüé, or Renan, thought the interesting ruins they were so instrumental in recovering for European study would, within a comparatively few years, be sacrificed to the sordid greed and interests of a barbarous Turkish colonisation.

USE OF SLATE IN NORTH-EAST CORNWALL.

THROUGHOUT Cornwall slate is in commoner use than in any other part of the United Kingdom. Particularly is this the case in the north-east part of the county, owing to the great pits of the old Delabole slate quarries, in the parish of St. Teath, which are still in active operation. St. Teath is bounded on the north by Tintagel, on the east by Lanteglos and Michaelstow, on the south by St. Tudy and St. Kew, and on the west by Endellion and the sea. These quarries are of considerable antiquity; they were of much repute in the days of Queen Elizabeth. Carew, writing about 1600, says:—"Delabole slate is in substance thinne, in colour faire, in weight light, in lastinge stronge, and generally carrieth to good regard, as (besides the supply for home provision) great store is yerely conveyed by shipping, both to other parts of the Realme, and also beyond the seas into Britaine and Netherland." Borlase gives the Delabole slate a very good character. In his "Natural History of Cornwall," published in 1758, it is stated that "the stone of this quarry is not subject to rot or decay, to imbibe water, or split with falling; but for its lightness and enduring weather, is generally preferred to any slate in Great Britain." Nor is this too high praise, considering that much of the ornamentation and lettering of the Delabole slate used for memorials is as fresh and delicate in its cutting as it was when it left the mason's yard in the days of Elizabeth or James I.

The slate of these quarries has somewhat deteriorated of late years in texture and lamination, but it still retains its special qualities of lightness and durability. Notwithstanding the great depth at which the quarries are now worked and the amount of débris required to be removed, the use of improved machinery and the nearness of the new line of railway have so developed the industry, that about 150 tons of material are raised daily to the surface. In addition to considerable land sales for local use, the railway conveys about 1,000 tons per month of dressed slates for shipment at Wadebridge or Padstow. These are of every size, from the great slabs for cisterns down to the smallest of roofing slates. From the North Cornwall coast they are conveyed not only to the great English ports, but to almost every part of Europe.

The processes of quarrying and preparing the slates are ingenious, and much more interesting to the intelligent visitor than those of the great Welsh quarries. It is not, however, our intention to offer any descriptive comments on these processes, or on the simpler and more antique methods by which they were preceded, but rather to notice briefly the chief purposes for which these slates are, or have been, used in that part of Cornwall.

One of the least picturesque uses to which the larger spoil of the quarries is put—and has been for many a long year—is the construction of rude but fairly effective fences. In the immediate vicinity of Delabole, and for some few miles round, slabs of rough slate of various sizes and heights, some square and some pointed at the tops, are driven into the ground close to each other, and form a durable fence between fields or round gardens and yards, so long as they remain upright. In the dusk, when tramping some moorland road or track, these fences, suddenly encountered, have rather a ghost-suggestive effect, as the traveller seems to be continuously approaching a succession of graveyards.

The same scarcity of wood and the lack of brickmaking clay throughout this district, which induced the inhabitants to use slate for fences, has also caused them to use still larger slabs for the walls of pigstyes, hovels, and a variety of farm outhouses, including even some of the humbler and older cottages. We have several times measured slabs used for such purposes, and have found some of the largest 7 or even 8 ft. high by 4 ft. wide. The kitchens and back premises of the older houses, as well as the cottages and their approaches, are usually paved with slate slabs. The older examples, through constant foot friction, attain such a bright and polished surface that they might almost be taken for a deep blue marble. This is specially the case with church paviors, though absolutely in this land of slate not a few of the church "restorers" have of late ejected these time-worn slabs, so beautiful and restful to the eye, in order to replace them with the cheapest kind of encaustic tiling! The smallest size slate that is ever cut is 6 in. by 3 in.; these are occasionally used for paving church porches or church towers, or other places where there is much traffic. They are pitched on their edges in squares of 6 inches, arranged alternately in different directions. This was a very old use in the North Cornwall churches, but has of late for the most part disappeared; it can still be seen in the churches of St. Minver and Laneast.

It might be thought by the unobservant that there could be little or no difference in the application of slates for roofing purposes; but the fact is that there is no greater contrast in Cornish building than the ancient and modern roofings of the slate districts. Some of the old manor-houses, once so numerous in St. Teath and the adjacent parishes, where the manors were mostly of small extent, still possess in whole or in part sixteenth and seventeenth century slated roofs—such as Pengenna, Polrode, Penrose, Treharne, and the back part of Trehannick. The same may be noticed with some of the old mills and cottages. There was then no elaborate machinery for the splitting and shaping of the slates; they were somewhat thicker and varied much in size; the smaller ones, that predominated, measuring from 6 in. to 8 in. or 10 in. in length. As a rule, the old slaters used larger and larger slates as they neared the eaves, some of them as much as 3 ft. in length at the extreme margin. These old slated roofs, in their pleasing irregularity and with their occasional depressions, are charming in outline, and the whole often assumes a silvery greyness of tone most soothing to the artistic eye. In the Cornish church restorations of the last half century, many of which (especially those undertaken in the "sixties") were grievously vulgarian in character, it seems to have been the invariable rule to choose for the new roofs the thinnest and glossiest of slates, all of precisely the same size, and geometrically arranged in exactly parallel lines. The effect is disastrous, and often imparts a look of smugness to these interesting churches so largely rebuilt in the fifteenth century, the contrast of the sleek purple slates and smooth red ridge tiles with the granite walls and tracery being so excessive. Nowhere within a circuit of many miles round Delabole is there a single old church roof left, save at the little unrestored church of Tremayne. Nor is there the least excuse to be found for this wholesale construction of brand new slating under the plea that the House of God must be safely ceiled from the weather, for, within the self-same circuit, many a roof of picturesque beauty can still be noted over manor-house farmstead, or cottage that was probably slated in the time of Elizabeth or in early Jacobean days. Even if it was proved, in certain cases, that an old church must have new slates, a slight increase in the expense would have procured rougher and thicker slates, and would have allowed for the sizes to be graded. Possibly some few old

churches or other old buildings remain in Cornwall that may ere long be crying for new roofs, when, if they are really required, architects might surely strive to get rid of the glossy meagreness that is the characteristic of most of the new slating.

It is pleasant to notice an old use of slates in connexion with Cornish churches revived in some of the more successful restorations, such as that of St. Tudy, where slates with scolloped or vandyked edges are used under the gable ends as protections for the woodwork, the effect being somewhat the same as that of the ornamental bargeboards of half-timbered and other dwellings. The ruthlessly restored churches of Lesnewth, Minster, and Forraburg had remains of slates thus treated, a few having ornamental perforations mostly of cruciform pattern. We noticed one or two of this character in new work at the exposed church of Advent.

A nice use for slate slabs, when so easily and cheaply procurable, which seems to be of a comparatively modern invention, is to place them over the outer doorways of cottages or other dwellings at a considerable angle, supported by simple iron brackets. These slabs, 2 ft. to 4 ft. in width and of a length that corresponds with the breadth of the doorway, form a good break in the wall-plane, and afford a useful degree of shelter from rain or sun.

But the most interesting, if not the most serviceable use to which the great slates of Delabole have been put for many and many a generation is in the formation of memorials of the departed. The graveyards for miles around are full of upstanding slate headstones, hardly 1 per cent. being of any other material. Those whose tastes lie in the direction of copying old epitaphs with their quaint rhymes will find abundant occupation in this district. Down to the present day, the Cornish folk love to have inscribed over the grave of relative or friend a verse of a hymn, or some well-worn or original doggerel in rhyme. In many a parish in the shires the rule of the incumbent is that naught save a verse from the Scriptures is to form the comment on a headstone or other memorial, and the ruling is meekly accepted. But woe betide the Cornish parson who attempted to carry out any such regulation! The durability of the Delabole slate is strikingly exemplified by these churchyard headstones. Seventeenth century epitaphs can frequently be found, and occasionally sixteenth, with lettering almost as legible as the day it was cut.

When slate began to be used for memorials within churches it is not possible now to say. The only one of pre-Reformation date that we have noticed in this district is the stone to John Boskarrock in the church of Endellion. The slab, which is now placed against the east wall of the north aisle, has a cross with a floriated head running the whole length. The marginal inscription in Latin to this gentleman of one of the most ancient of Cornish families, is content to record his death, 1537, concluding with the pious aspiration: "Cujus amine proficietur Deus. Amen." In the days of Elizabeth, when high-sounding and often bombastic and presumptuous epitaphs became the fashion, slate lent itself readily to the custom, and was commonly used by the county families of this neighbourhood not only for epitaphs and highly ornamental Renaissance borderings and ornaments, but also for heraldic display and for effigies in high relief. The treatment of the effigies is noteworthy, and the slate in the best examples yields itself admirably for the portrayal of features and of details of dress and ornament. The best of this kind of work that we have noticed are three dateless and nameless ladies in the north aisle of the church of St. Tudy, and two Nichol monuments at the west end of the south aisle of the same church, *temp.* Elizabeth and James I.: Honor, wife of John Webber, and her three children in the church of St. Kew; Christopher Rogers and wife, and Lewis Adams (vicar) and wife in St. Breward Church, both erected in 1609; and the Bennet effigies in St. Teath Church, 1636. For a quaintly debased style of incised slate effigy, the slab to the memory of Jane Meredith, 1662, in the church of Michaelstow should be noted.

These have all been originally table tombs, but at times of re-pewing or "restoration" have been dismantled and portions placed against the walls. The Rogers tomb, however, in St. Breward Church is still erect. There is good heraldry, with mantling, and ornamental borders to the Kestell family, 1581, in the church of Egloshayle, banished under the tower as though discreditable during the restoration; at Trevalyn, to a Roscarrow, 1646; at Padstow, to the Prideaux family; and in connexion with the above-named effigies. The great mural monument to the Trederrick family, 1578, in the church of St. Breock, is the most ambitious effort in slate that we have noticed.

"Restorations" are also responsible for ejecting a variety of slate memorial slabs and stones and breaking up or losing others out of the churches. The worst instance of this is the beautifully situated church of Lanteglos, where, to make room for a poor set of coloured tiles, already in bad repair and slovenly condition, slates with inscriptions of much interest, and of dates varying from 1585 to 1652, were turned out, and now lean against the outer walls of the church, where they are overgrown with ivy, weeds, and rank grass. At St. Teath there are several Elizabethan inscribed slates against the outer east wall of the church, and one to John Brod, gentleman, 1577, near the porch at Michaelstow. These ejected memorials ought to be replaced under cover for preservation. However durable Delabole slate may be, these particular stones were not chosen for exposure.

An early use of slate for a well-defined ecclesiastical purpose is to be noted in the north chancel chapel of the church of St. Marcelliana at Tintagel, where there is an altar of solid masonry, the *mensa* of which, with its five consecration crosses, is of slate. This, however, was not the usual material for Cornish altar stones. The altar stone of the chapel of St. Julitta on the castle rock at Tintagel is of granite, and there is a similar stone for the altar in the south aisle of the church of St. Breward. A later church use for slate was for the tables of the Ten Commandments. At the west end of the south aisle of the church of St. Tudy are slate tablets inscribed with the Commandments; they are well lettered and have good head and tail strips of ornament. They are of some age, and it seems a pity that they were displaced at the church's restoration. The Commandments on slate are also to be found in the church of Michaelstow; in that instance they are relegated to the north aisle.

It only remains to state, after the briefest fashion, some of the uses to which the Delabole slate is now put which have not been previously noted. It is made into cisterns (as large as 2,000 gallons), corn-chests, pig-troughs, mangers, pump-troughs, baths, setting-troughs, milk-coolers, chimney-tops, mantelpieces, window-sills, lintels, quoins, caps for mow-steads, butter-stones, and garden-edging. The larger and coarser refuse is also much used for general building purposes. The one purpose for which Delabole slate seems quite unfitted is the framed slate for school purposes. The ordinary slate pencil hardly makes any impression on a Delabole slate.

NOTES.

The Liverpool Cathedral Question.

It appears from the local papers that the special committee appointed to consider the question of a site for a cathedral at Liverpool have rejected the idea of erecting one on the site of St. Peter's Church (the present pro-cathedral). We think they are right, both because the site, in an architectural sense, is too confined, and because it would involve the destruction of St. Peter's Church, which, though ugly enough, has a historical interest as one of the older churches of Liverpool. The other two sites talked of are that of St. Luke's Church, and that in Monument-place, London-road. The St. Luke's site is open to the same kind of objections as the St. Peter's site. In an architectural sense it is a side position, with no street leading up to it which could centrally face the proposed cathedral; and St. Luke's is one of the most important of the early Gothic revival churches, and for the date of its erection is not without merit, besides being also a kind of historical monument of that phase of nineteenth century English architecture, and it would be a pity to destroy it. What is called the Monument site is a wide space just below a point where two streets diverge; it is rather narrow, but in other respects it is an architecturally advantageous site; the west front of the cathedral would face a tolerably wide road leading centrally up to it, and would (if we remember right) be seen from St. George's Hall. In an architectural sense it is the best site that has been recently proposed.

The Housing Question.

It is clear that in the approaching County Council Election each side intends to make the housing question one of importance. This is as it should be. At the same time, from a practical point of view, it is desirable that each side should go into detail on this matter. In what way do they differ? The Progressives point to the past, the Conservatives to a future, in which, if they are given a majority, they will do more than their opponents. But in what way do they intend to do better? Last week we gave a *résumé* of the housing work in London for the last half century. It is useless to deal in generalities. What the voter desires to know is in what way the policies of the two opposing sides differ. These divisions in two parties are in many ways absurd. The need of the electors is the choice of

capable men who will attend to [municipal business. Attempts to sketch rival policies on broad outlines can have no practical result, since the question of housing is essentially one of details. It is so important, that we hope the various candidates will enlighten the electors on their views on the various points which arise on this question.

London County Council Tramways.

ON the invitation of the London County Council we had an opportunity last week of inspecting a model conduit system of electric traction which has been set up at Camberwell. We were disappointed to find that the electric car exhibited was running on the Westinghouse track, and was the one recently exhibited at the Agricultural Hall. There was shown, however, a model of the conduit system which the County Council propose to adopt on several of their tramways. We studied this with great interest, as it is Dr. Kennedy's solution of the most important question of electric traction for London. Midway between the ordinary rails there is a third rail, which has a narrow slot—only $\frac{3}{4}$ in. wide—down its centre. This slot leads into a concrete conduit, the bottom of which is about 1 ft. 9 in. below the top of the slot rail. The live conductors will be two steel rails, one on each side of the conduit, and supported every 15 ft. on insulators. The current will be collected from the conductors, and transmitted to the motors on the car by rubbing contacts on a plough carried by the car and passing down through the slot. This is nothing very novel, but the problem is not one that calls for startling inventive ability so much as for skilful mechanical engineering and attention to details of drainage, the prevention of leakage from the conductors, and the cleaning out of mud and refuse. Judged from this point of view, we regard it as a successful solution. Of course it would have been better to have had a larger and deeper conduit, but this would have enormously increased the expense, owing to the network of pipes, &c., under the streets. It is intended that the whole of the Council's tramways south of the Thames shall be supplied with electrical energy generated at the Camberwell station and distributed from numerous sub-stations. The first part of the Council's tramways will be reconstructed and worked by electricity in about eighteen months' time.

The London Building Act *v.* Advertising Signs.

A CURIOUS and important decision has just been delivered, in the case of Hull *v.* The London County Council, by a Divisional Court of the King's Bench Division, on Section 73, Sub-Section 8, of the London Building Act. The question was whether an advertising sign came within the words of that sub-section, and if so, the permission of the County Council for its erection should have been obtained. The words of the sub-section are "except in so far as is permitted by this section in the case of shop fronts and projecting windows, and with the exception of water pipes and their appurtenances, copings, string courses, cornices, facias, window-dressings, and other like architectural decorations, no projection from any building shall extend beyond the general line of buildings in any street, except with the permission of the Council." The Court came to the conclusion that a sign of this kind—a case attached to the wall by iron brackets—was not within the words of the section, for the intention of the Legislature was to prevent projections of an architectural kind—such things, in fact, as formed part of the building. This decision, therefore, is one on the principle of construction to be adopted in construing this portion of the Act. Moreover, as the Court pointed out, the Council is empowered by Section 164 of the Building Act to make by-laws for, among other things, the regulation of signs and structures overhanging the public way. It is clear, therefore, that regulations can be made to prevent advertising signs from being detrimental in any way to the public interest.

Electrical Power Bills.

THE paper read to the Institution of Electrical Engineers this week by Mr. W. L Madgen on "The Electrical Power Bills of 1900: Before and After," was a strong plea in favour of improved legislation in connexion with electrical matters. He pointed out that the general supply of electrical energy for industrial and domestic purposes is practically governed by the Act of 1882. Now, when this Act was framed, it was thought that a mile from the central station was about the outside limit to which electrical energy could be economically supplied. The Act contemplated that the Local Authority would become the ultimate owner of the local undertaking, and hence the restrictions as to the period and the terms of the purchase, the clauses as to consent, &c., which heavily handicap private enterprise. A Joint Committee of the two Houses reported in 1898 that in their opinion when it was for the public advantage that electrical energy should be supplied over wide areas, including the districts of numerous Local Authorities, then the provisions of the Electric Lighting Acts, which require the consent of the Local Authority, should be amended. During the last two or three years nothing whatever has been done to carry out this recommendation, and Mr. Madgen alleges that the misuse by the Local Authorities of the powers conferred on them by the Acts is notorious. However, four power Bills were passed last Session, and the main power station of the "County of Durham" company will be available in a few months for a comprehensive system of supply. Some very hard things were said about the Tramways Act of 1870 and its provisions in rigidly limiting the term of the concession to twenty-one years, and practically fixing the price at which the municipality may take it over at something considerably below its value. In conclusion, Mr. Madgen asked the Council to appoint a committee to consider what steps should be taken to remove the legal restrictions which have hampered the progress of the industry. The paper presents the case for private enterprise very strongly, but it would perhaps have more weight if it recognised the excellent pioneer work done by many municipalities, and the disastrous consequences that sometimes follow when private companies make haste to get dividends.

The Baptist Union Corporation.

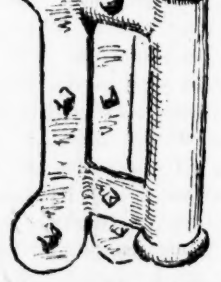
MR. ARTHUR KEEN has prepared plans and designs for new buildings to be erected, at a cost of about 34,000*l.*, as headquarters of the Baptist Union upon a site in the new street from High Holborn to the Strand. The new Baptist Church House will take the place of the Baptist Chapel in Kingsgate-street, High Holborn, which was established there in 1735, and is marked for demolition in the course of the projected improvements in that quarter.

Decorative Art of Primitive Peoples.

IN a lecture at the London Institution on Thursday, February 14, Professor A. C. Haddon dealt with the decorative art of primitive peoples. The lecture was confined to a brief outline of the subject, and to some of its detailed developments, well illustrated by a number of photographic lantern slides. The Professor made it very clear what an important part decoration assumes in ethnology; how universal was the expression of powerful emotions, religious, warlike, and superstitious, by means of natural forms, developing ultimately into symbols widely differing in form with each race, and influenced by the local circumstances of materials and manners. These primitive arts are valuable not only for their historic significance, their quaintness of form and of invention, but also for the philosophy and reasonableness of the system adopted, of which much modern decoration is entirely innocent. The closing years of the nineteenth century saw certain changes in the value of decorative art, a tendency to study the subject more seriously, and to draw attention to its influence on character; but popular decoration is still too uncertain a quantity to be representative among other attainments of the present age. An obstacle to advance in the arts is the tendency to specialisation; the sharp distinction that is drawn between the useful and the ornamental is characteristic of the age; the average person possesses a positive knowledge of the former and a negative knowledge of the latter. The artistic and scientific inquirer have much to learn from each other before good decoration will be recognised and welcomed as a useful and necessary art.

An Ancient Latch.

MR. HENRY ROSE writes to us from Chard:—"I enclose a sketch of a variation of the Norfolk latch, which is quite new to me. I do not think that you will deny it the publicity of a place in your columns. It would have delighted the soul of Viollet-le-Duc; he would have made a diagram showing how it was cut out of a single sheet, and had a ring welded on at each end of the hollow handle. It occurs on the external door of a very dilapidated little cottage about two miles from here, which will probably be swept away ere long—the thatched roof



An Old Somersetshire Thumb-latch.

has disappeared already; meanwhile, it is covered in with corrugated iron, perhaps more in character with the latch. Little isolated districts of three or four cottages have names about here, the one in question is Paintmoor. As to the date of the latch, I know nothing—probably last century."

The Fine Art Society's Gallery.

THE small sketches in water-colour by Mr. Wilfrid Ball, of scenes in Cornwall, Devon, and Somerset, now on view at the Fine Art Society's Gallery, form a charming collection of landscape studies of great truth and delicacy. Many of them are coast scenes,—an expanse of sand with the sea beyond, a kind of subject in which the author is especially happy. Among the best of these are "Whitesand Bay" (2); two sketches at St. Columb's Porth (12 and 17); "Calm after Rain, Sennen" (21); "Clear and Fresh, near Port Isaac" (25), a dark sea behind a flashing white breaker; and "Sea Pools, near Sennen Cove" (105). Some of the inland subjects are also admirable studies of tone and atmospheric effect; "Colyton" (33) is a beautiful miniature landscape study; and "Short Cut by the Cliffs, Berry Head" (47); "South Devon Farmstead" (58); and "A Spring Day" (95). Mr. Lee Hankey's collection of drawings at the same gallery we are not very much taken with; the style is too woolly and the colour in many of them not agreeable or (to our thinking) natural. "The Empty Basket" (30) is a well composed little picture of artistic quality; "The Kindling Dawn" (19) is a good landscape study. But we were not able to feel very much interested in the collection as a whole.

A Mission Church Competition.

AN architect sends us a characteristic circular which has been sent round among the architects of the district in regard to a proposed new mission church for Melton Constable. The building committee invite "designs and estimates" to be submitted for their approval. "While economy must be strictly studied, the committee do not bind themselves to accept the lowest estimate or any of the plans submitted." The document proceeds to point out that sketch-plans will suffice in the first instance, "but they must be sufficiently detailed to give a fair idea of the general design and construction, and should include four principal elevations, one longitudinal and two transverse sections, and ground plan." No premiums are offered, and all this is to be done on the chance that the committee will deign to make use of one of the designs!

PLAISTOW PUBLIC BATHS.—Public baths have been erected by the West Ham Corporation in Balaam-street, Plaistow. The baths have been built by Messrs. Spencer, Santo, & Co., from plans prepared by the architect, Mr. Saxon Snell. Mr. Gardner was the clerk of works. The exterior is of Portland stone relieved by red bricks. From the entrance hall branch off to the right and left the swimming baths. On the left is the first-class swimming bath, some 150 ft. long, round which runs a gallery with a balustrade in front. On the right-hand side of the entrance is the second-class swimming bath. This is 60 ft. long and 27 ft. broad, and the depth ranges from 4 ft. to 7 ft. There are sixty-two dressing-boxes to the first bath and fifty-two to the second. In between the two are the slipper baths, some twelve in number, while at the rear is the establishment laundry, close by the engine and boiler houses. Going up from the sides of the entrance hall are two stone staircases, the one leading to the ladies' first and second class private baths, ten in number, and the other leading to the gentlemen's baths, which are rather more numerous.

WHITCHURCH ASYLUM COMPETITION.

THE drawings of the five selected designs in the final stage of the competition for the Cardiff Asylum at Whitchurch, Glamorganshire, were on view in the Council Chamber of the Town Hall, Cardiff, last week. The site is conveniently situated a few miles north of Cardiff and Llandaff, in pretty country, bounded by the Merthyr-road on the east, the Glamorgan canal on the west, and the new Cardiff railway to the north. The institution is proposed to accommodate 1,250 patients, of whom only 800 are to be provided in the first instance, but the plans show the complete scheme. The distribution of the several classes was left to the discretion of the competitors, who were furnished with copies of the instructions, and suggestions issued by the Lunacy Commissioners, as the basis of the arrangements. Mr. G. T. Hine, who acted as the assessor, in advising the Corporation in both competitions, reported that No. 56, the design of Messrs. G. H. Oatley and W. S. Skinner, of Bristol, was the best and more closely followed the instructions than any other. In this selection we fully concur. The plan is an able exposition of the requirements of such an important undertaking, and is evidence of much skill, without doubt the product of matured experience.

The lay-out is naturally based upon the imperative considerations of aspect, allocation of classes, administrative supervision, and easy extension. The skeleton of the plan is formed by the main arterial corridors, which would almost make an equilateral triangle, wide at the top and cut off before reaching the bottom. This is intersected by the only horizontal corridor which runs across the plan, with the kitchen as a centre; the other corridors intersect at obtuse angles, the two lower ones being curves, all of which connect the several blocks. The principal entrance is at the top of the vertical axis, while the assistant medical officers' quarters, a detached building, is at the bottom. Commencing at this latter point and ascending, the arrangement of the heart of the triangle may be thus described.

The assistant medical officers' quarters are connected by a long passage to the main building front, which is occupied by the matron's quarters, dispensary, pathological-room, &c. Areas supervene between this and the recreation hall, which is also used for dining purposes. This is a large apartment, 100 ft. by 50 ft., and is provided with a stage and dressing-rooms, this is placed longitudinally upon the plan; a hall scullery with large areas on either side part it from the kitchen, which has convenient serving lobbies at either end, and provides messroom, cooks' room, and other offices. At this point is reached the corridor before referred to, which bisects the plan horizontally.

Above this, parted by the large kitchen-court, is the steward's department, which is spaciously arranged with gallery over, both this and the kitchen-court have suitable cart access. A corridor lighted on one side, having on the other bakery, cooling-room, and other offices connected with the steward, leads to the official block, which is at the top of the plan, having servants' quarters over. Behind the official block to the left are the laundries, with ample drying-grounds, the boiler-houses, machinery, and yards. On either side of the recreation-hall and kitchen are vertical corridors off which on the left in convenient proximity are the attendants' mess-rooms below, and the servants' mess-rooms above; while on the corresponding side to the right are the provision stores placed on the kitchen court side. We have thus outlined the arrangement of the interior or administrative part, around which are grouped the blocks occupied by the patients in their several classes; the females on the left the males on the right.

The sick and infirm blocks are naturally kept at the bottom, near the medical officers quarters, while the noisy patients are placed where least inconvenience will be felt, the bath-houses being conveniently placed off the corridors. The arrangement of these blocks has been admirably conceived, each being placed at an obtuse angle and in *echelon* to gain the maximum of sun light to the day rooms, which are provided with large bays, and the wards. There are some points, however, for criticism; among which may be noted the arrangement of the beds in the sick wards, and the planning of the sanitary towers, which might be improved upon. A strong point in the design, and one upon which too much emphasis cannot be laid, is the able way in which the staircases and the accesses have been arranged, forming an integral intention in the design, for the direct and unhindered exit in one of two or more possible ways in case of fire or panic. The extensions comprise a large block at the top point on either side, where such can be conveniently made; the other—*i.e.*, female 68, and males 42—are within internal courts which it will be inconvenient to reach. Of all the designs, this seems to be the most economically one arranged, and open with free surrounding air and withal compact.

The remaining buildings are spread over the site in the following disposition. Above the official block on the central vertical line, and parted therefrom by the broad entrance drive is the chapel, to the right of which is the steward's house. Above the chapel, with an intervening space of 36 yds. is the mortuary, and on the same axis, 76 yds. higher up still, is located the isolation hospital. To the right of the steward's house, and near the Merthyr-road, are quarters for the clerk of works, gardeners, and engineers, besides a group of six cottages and the entrance lodge. The medical superintendent's house is on the opposite side of the site, detached, overlooking the Glamorgan Canal.

Little remains to be said about the architectural character, which is strictly utilitarian, and very depressing. We venture to hope some attention will be given to the necessary and healthful element of beauty in pleasing and simple outlines and detail, which is surely absolutely necessary in such an institution. The dominating feature is the small water-tower with the adjacent chimney-shaft; these might be combined as there is an ample pressure, and but two days' storage is required for emergency. The remaining features are the various louvred ventilating-shafts, which are carried up some 20 ft. above the ridges.

The total estimate is 235,000*l.*, which is about 188*l.* per bed for the complete scheme; the first portion being 194,000*l.*, or 242*l.* 10s. per bed. This estimate, together with those of the other competitors, the assessor considers to be too low.

No. 57. Messrs. Wills & Andersen, of Swansea, have a good plan, with many excellent points and much evidence of a grasp of the subject. The disposition of the blocks and the corridors is, however, not so happy as in the selected design, besides exhibiting major and minor defects. The plan covers more ground, being about 200 ft. wider at the top. The extensions would not come in quite as conveniently as they should do. The elevations are very pleasing, an important element much lacking in the selected design. A simple and artistic detail of one of the principal elevations is shown; all of the drawings are admirably rendered.

No. 54. Messrs. J. H. Greenaway and J. E. Newberry have also an excellent set of drawings, the receding elevations being very effectively delineated. The planning and general disposition, however, do not exhibit that virtue of economy which it is so necessary to have and difficult to attain. The central portion is well arranged in a parallelogram, and is compact and well balanced, while the extensions are suitably considered; but there is much lost space in the large open courts.

No. 53. Messrs. Hooley & Sander, of Nottingham, have a plan not unlike Claybury, which is very well laid out, but rather suggests a treatment for a larger establishment than that proposed, and is much spread out. The elevations are quite unadorned and unelevating.

No. 55. Messrs. Law & Allen, London, have a full and carefully worked-out plan, with a long front-block, while the infirmaries seem to be about the best arranged in the whole competition, although here, also, the arrangement of the beds leaves much to be desired. A good and complete scheme of farm buildings has also been included by the authors, which the other competitors have not done. The buildings have a distinct architectural treatment, which has been well shown.

STATUE OF QUEEN VICTORIA, HOVE.—A statue of the late Queen which has been erected at the foot of Grand-avenue, Hove, was unveiled on the 9th inst. The statue is 13 ft. in height, and of bronze. It stands on a pedestal, 14 ft. in height, of grey Aberdeen granite. The statue was originally intended as a Diamond Jubilee memorial. Mr. Thomas Brock was the sculptor.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

A MEETING of the Royal Institute of British Architects was held on Monday evening last at No. 9, Conduit-street, Regent-street, Mr. E. A. Gruning, Vice-President, presiding, in the absence of the President, Mr. W. Emerson, through indisposition.

The Late Queen.

The minutes having been taken as read, Mr. W. J. Locke, Secretary, read the President's remarks on the death of the Queen, the members all standing. "Gentlemen," said the President, "I must ask you all to rise for a moment as a tribute of respect to our late great Queen. Since last we met together here, a most solemn and soul-stirring incident has occurred. The Empire has sustained an incomparable loss. The Victorian era, a most memorable epoch, has passed. The British Empire and the world in general, wherever civilisation exists, is mourning the death of our late Sovereign. Europe, Asia, Africa, America, and Australia have been deeply touched, and have all given kindly expression to their profound sympathy with us. It is not only the loss of a great ruler that is mourned, but also the loss of an inexpressible influence of a good, religious, wise, and gracious lady, and of a sympathetic woman. Who can have read without having been deeply touched her oft-repeated solicitude for those in distress, whether her soldiers, sailors, or others of her subjects. Our late Queen's influence must necessarily have been greater than that of any previous monarch in the world's history. For Queen Victoria's Empire has been the only one in which influence, whether for good or evil, could have been felt over an extent of territory so great that in it the sun never sets. But we as members of this Institute have even a closer tie, a deeper cause for mourning. Her late Majesty was not only our beloved Queen, but also our most gracious, beneficent patron. Her kindly interest in us commenced with the action of her Royal Consort in our foundation, and has been evinced from time to time during the whole of her long and glorious reign. Those who have had the honour of receiving from this Institute the Queen's Gold Medal for Architecture will cherish no possession more highly. It is a memento of the greatest Queen the world has seen, and also of the kindly encouragement her late Majesty so beneficently extended to influence for good our art of Architecture. Her reign has been the most memorable in the annals of this country for the marvellous increase of her Empire, and its unrivalled prosperity, as well as for the unprecedented advancement in learning, science, and art. I feel sure there is not one amongst us who not only deeply sorrows, but who must also feel a loneliness at heart at the loss of our late beloved Sovereign Queen Victoria. There is a great blank.

But in our grief we have happiness in welcoming our King's accession. From his known affection and sympathetic understanding of his people, his careful attention to his duties, and his gracious promises to follow in the footsteps of his Royal mother, we feel every confidence that he will so wisely rule as to endear himself to his subjects, who will entertain the deepest feelings of loyalty and devction to His Most Gracious Majesty King Edward the Seventh. God save the King!

As a matter of form I must ask you to ratify the action of your President and Council in sending to his Majesty an Address expressing on behalf of this Institute and its allied Societies the sincere expression of our sorrow and loyalty. The Address is as follows :—

The Humble and Loyal Address of the R.I.B.A. to His Most Gracious Majesty the King.

May it please your Majesty,—

We, your dutiful subjects, the President and Council, on behalf of the members of the Royal Institute of British Architects and of the societies both in the British Islands and the colonies in alliance therewith, beg leave humbly and respectfully to approach your Majesty, and to offer our deep and heartfelt sympathy in the inexpressible loss your Majesty, the members of the Royal Family, and the nation have sustained by the death of your Royal mother our late Most Gracious Sovereign Queen Victoria of glorious memory. Her late revered Majesty encouraged with her Royal and generous patronage the art that is so dear to us, and we mourn with deepest sorrow, not only in common with the rest of the British Empire, our beloved ruler, but also the gracious and beneficent patron of the Royal Institute throughout the whole length of her long reign. We most respectfully and dutifully tender to your Majesty our sincere devotion and loyalty on your accession to the Throne, and earnestly pray that the Almighty will grant your Majesty and your Royal Consort Queen Alexandra a long, happy, and glorious reign, during which the nation may prosper, the arts flourish, and your Empire enjoy all the blessings of peace."

The Royal Gold Medal.

The Chairman said that under ordinary circumstances that would have been the night on which the choice of the Royal Gold Medallist for the year would have been announced, but under the circumstances it was impossible to do so. The Royal Gold Medal was a personal gift of their late revered Sovereign, and with her death that gift ceased. Time did not allow them, nor would it be politic, to approach his Majesty the King on the subject, and therefore for the present and for this year the award would remain in abeyance. The continuance of the presentation depended entirely on the wish of the King, and the Council of the Institute intended to make application in a proper manner in the hope that the award of the medal might be continued in the future.

Elections.

The following gentlemen were then elected: As *Fellows*—F. S. Baker, Toronto; A. C. Blomfield, M.A., London; C. J. Blomfield, London; G. F. Collinson, London; William Flockhart, London; John Leeming, London; and Joseph Leeming, London. As *Associates*—T. B. Ball, Weston-super-Mare; E. W. Banfield, London; G. Brumell, Morpeth; H. M. Cautley, London; W. G. St. John Cogswell, London; W. E. B. Froome Crook, London; H. A. Douglass, Brighton; T. W. Gordon, Nottingham; A. H. Goslett, Great Stanmore, Middlesex; S. Harrison, Leicester; C. E. Hutchinson, London; A. L. MacGibbon, Edinburgh; R. H. J. Mayhew, Anerley, S.E.; W. V. Morgan, Carmarthen; R. Wynn Owen, Liverpool; A. Wyatt Papworth, Maida Hill, W.; J. Quail, Manchester; F. J. Osborne Smith, London; E. J. Tench, Cambridge; C. Boswood Thomas, London; H. A. Tinker, London; P. J. Turner, London; W. J. Walford, Anerley, S.E. As *Hon. Fellow*—Sir Lawrence Alma-Tadema, R.A., F.S.A.

Asylums and Asylum Planning.

Dr. Hayes Newington then read an exhaustive paper, prepared by Mr. G. T. Hine, on "Asylums and Asylum Planning," of which the following is an abstract :—

Mr. Hine said that asylum construction embraced the study of almost every description of building, from a church to a cow-shed, and the art of combining so many dissimilar structures into one harmonious whole, with the engineering skill necessary to provide for and supply heat, light, and water to what is practically a little town, made asylum architecture an almost distinct profession in itself. Further, asylums are built for people who have to be watched, nursed, and provided with employment and recreation under conditions inapplicable to sane people, and to provide for all these, while the subjects are under enforced detention, a very special knowledge is required to make their lives bearable, and, as far as possible, pleasurable. In order to make his paper of some use to the student of this branch of architecture, he proposed dealing chiefly with asylums at home and their most fitting form of planning, and referring to some of the most interesting examples in foreign countries.

Starting with a brief historical sketch of the building of public asylums, the author stated that there was no certain evidence of asylums for the insane before the Middle Ages. Early in the fifteenth century there is record of a most sumptuous building erected in Cairo for the exclusive use of lunatics. In 1641 the asylum of Notre Dame de la Paix at Charenton was founded for the reception of lunatics, and is now one of the largest of such institutions in France. In 1660, in the Hôtel Dieu at Paris two small wards were set apart for the mentally afflicted. Gheel, in Belgium, has been a resort for lunatics for many centuries. Here patients were brought to be cured, boarding with the peasants of the district, and from this has gradually developed a colony of resident lunatics, numbering to-day nearly 2,000, who, while still chiefly boarding with the inhabitants of the place, are under a strict code of regulations framed by the Government. In England there are records of an asylum for the insane at Barking, founded in 1370. Bethlehem Hospital was founded in 1247, but it was not till 1403 that we have any record of lunatics being received there. Of other early buildings of the kind in this country were St. Peter's Hospital at Bristol, founded in 1696; the Manchester Royal Lunatic Hospital in 1706; Bethel Hospital, Norwich, in 1713; St. Luke's Asylum, London, in 1751; and the Liverpool Lunatic Hospital in 1792.

Up to the end of the eighteenth century such lunatics as were not at large were confined in prisons or in the few houses then erected for their accommodation, and were frequently treated worse than felons, often with the greatest cruelty. But in the year 1796 the "Retreat" at York was founded by the Society of "Friends," an institution where an intelligent system of treatment was initiated and carried out under the able direction of Mr. William Tuke. This institution and the novelty of its treatment constitute a landmark in the history of lunacy. It roused a spirit of inquiry into the housing and care of the insane, which resulted in the passing of an Act in 1818 permitting county justices to erect asylums for the accommodation and treatment of pauper lunatics. In 1845 another Act was passed, making it compulsory on local authorities to provide asylums for the insane in boroughs and counties throughout England and Wales. This Act established the present Lunacy Commission with six paid Commissioners, whose work of inspection and direction has done so much to ameliorate the condition of the unfortunate people under their care. In 1845 there were only about thirty pauper asylums and hospitals, the latter chiefly for private patients, besides a number of registered houses, and, as nearly as could then be estimated, about 17,000 pauper lunatics in England and Wales. Now (in 1901) there are no fewer than 100 county and borough asylums and hospitals, together with something like seventy registered houses, all of which have to be inspected once—in some cases four times—a year, and 107,000 certificated lunatics to be interviewed by the Commissioners. Scotland and Ireland have also their separate Acts relating to lunacy—in Scotland on somewhat similar lines to those in this country, with a Board of Commissioners; but in Ireland the construction and direction of asylums are more directly controlled by the State.

Turning to the actual buildings, the author described some of the most notable erections since the Act of 1845, indicating the various stages in the evolution of asylum planning, a study of which is essential to a proper appreciation of its latest developments. Existing types of plan are all more or less developments of the corridor and pavilion systems. In the early days the corridor system, consisting of a long gallery, with single rooms opening out of it, was the only recognised principle on which an asylum could be built. The form was usually quadrilateral. After the Act of 1845, while the internal arrangements savoured less of restraint, the principle of the corridor system still prevailed. The first development was an attempt at classification by the introduction of a ward for the sick and infirm on each side of the building; the number of cells was reduced and more patients were allowed to sleep in associated dormitories. In the seventies special provision began to be made for epileptics, and the Lunacy Commissioners in 1874 published a plan designed by Mr. Howell for an epileptic ward, which has been adopted with trifling variations in nearly every asylum designed within the last twenty years. In the decade 1871-80 the most notable departure in planning is met with in the Lancashire County Asylum, at Whittingham, designed in what Burdett describes as the corridor-pavilion style, and characterises as one of the finest specimens of asylum architecture in England. The Gloucestershire second county asylum, erected on the pavilion system, the blocks being arranged in échelon, was the first of this type erected in England, and may be said to have originated the oblique or broad-arrow form of corridor now so commonly adopted in asylum designs. The Surrey second county asylum at Cane Hill, one of Mr. Howell's chief works, and accommodating 2,000 patients, is on the pavilion type, the blocks radiating from a main corridor of horse-shoe form. Criticising the variation of floor levels in this building, which necessitated flights of steps in the corridor, the author was of opinion that this irregularity could have

been avoided by a more careful consideration of the surface levels of the ground, and a little more excavating. He urged architects designing asylums to give a first consideration to the site. In many of the plans coming under his official notice the buildings are generally left to adapt themselves to the site rather than the site being adapted to the buildings. Describing the Claybury Asylum, designed by himself, the problem to be solved was how to accommodate 2,000 patients within reasonable distance of the administrative centre without prejudice to the position and aspect of their wards. The plan he adopted was a modification of the échelon type, the wards being approached from obtusely oblique corridors, the pavilion system being almost a necessity from the conditions issued. The asylum is built on the top of a hill, falling all ways, and by removing the apex of the mound, representing nearly 100,000 yards of soil, which was well disposed of in filling up a valley to the north of the asylum, a level plateau was obtained, sufficient to allow of about half the patients' blocks and the whole of the administrative department being erected at one uniform level; the remaining wards being slightly lower, but in no case more than 5 ft. below the central buildings. At Bexley Asylum the author first introduced the villa system on a tentative scale of three villas holding thirty-five patients each, and a detached hospital for fifty phthisical cases or others requiring isolated treatment. In this asylum, which accommodates 2,000 patients, all the wards communicate with one another, and an officer may pass from one end of the male or female side to the other without retracing his footsteps or being obliged to return to the main corridor. Bexley has proved so satisfactory that the London Asylums Committee have arranged with Mr. Hine to use the same plans, with a few modifications and improvements, for a second edition of this asylum at Horton.

Numerous other asylums were referred to, the author indicating their distinctive features and in many cases exhibiting plans.

The London Asylums Committee have found it necessary to add temporary buildings to some of their asylums. These erections, chiefly of wood and iron, provide accommodation for 1,700 patients at a total cost of about 173,000*l.*, averaging 100*l.* a bed—a costly expedient, considering the limited life of these structures.

Scotch asylums are administered by a Board of Commissioners, whose duties, though similar in many respects to those of the English Commissioners, are exercised under different laws and with different results in the planning of these buildings. The system of housing in the acute hospital the curable and incurable cases together is encouraged by the Scotch Commissioners, who consider it undesirable to separate entirely the two classes. This view is upheld by Dr. Conolly, who considers the absolute separation of the curable from the incurable to be neither practicable nor desirable—the incurable patients being generally fitter companions for the curable than the curable patients are. English medical experts, however, hold that a hospital, totally distinct and apart from the asylum, for the reception and treatment of new cases which are not diagnosed as hopelessly incurable, must prove an important factor in the cure of lunacy. It is well known that many forms of insanity are curable at an early stage, but by neglect or unfavourable conditions often result in permanent and incurable disease.

In 1889 the London County Council appointed a committee to inquire into and report upon the advantages of the establishment, as a complement to the existing asylum system, of a hospital with a visiting medical staff for the study and curative treatment of insanity. The committee held meetings, and invited leading medical experts to give evidence. Their report showed the evidence to be greatly in favour of the scheme, and they summed up strongly recommending the establishment of such a hospital. The County Council nevertheless ignored the recommendation, and have continued building asylums on the old lines. Other county authorities, however, have taken up the matter, and are providing hospitals for the reception and treatment of curable cases. The provision of an acute hospital the author considered to be one of the most important evolutions in modern asylum planning.

Touching asylums on the Continent, various plans were shown of German asylums, and interesting details given of the villa system as seen in the asylum at Alt Scherbitz, which may be said to have originated this type of planning, now adopted more or less in modern American asylums, and more recently, but to a less extent, in England. The villas are constructed very much like boarding-schools, with day and class-rooms on the ground floor and associated dormitories above. The doors and windows are open, and the patients come and go as they please, wander about or work in the grounds, enjoying comparative freedom, but always under the watchful eye of carefully-trained attendants. No wall encloses the estate, only a light and easily climbable fence. The gardens surrounding the houses in the central establishment are enclosed with palings, grown over with plants and creepers. The colony is bounded on the south by the river Elster, which flows at the foot of a steep hill in the grounds, and there is nothing to prevent a patient rushing down the hill and plunging into the river. Great value is attached to residence in the colony, and patients are given to understand that their stay there depends on their good behaviour, and are thus encouraged to exercise self-control.

Having given an account of asylums as they are, the author went on to deal with future possibilities of asylum designing, and then to give a detailed description of an asylum as it should be, instancing a building to accommodate, say, 800 patients, with provision for future extension to 1,200. As an illustration, the plans were referred to of the new East Sussex Asylum now erecting at Hellingly, which has been designed on the most modern lines, the whole scheme having been most carefully thought out by a committee of the County Council, with Dr. Hayes Newington at its head, whose wide experience, acquired in many years' association with asylum work, gave his committee an immense advantage in determining the basis on which they should work.

To understand the first principles of asylum construction, it is necessary to know something of the eccentricities of insanity and the habits and treatment of the insane. The author recommended the student in asylum planning to make friends at all opportunities with the medical experts, and to study the subject in the light of those whose duty it is to look after the insane. The architect can materially assist the doctor in both the cure and protection of the patient by the careful consideration he gives to the details of planning and construction of the asylum, and in doing this he will find that he must design buildings which give security without appearance of restraint. The ever-present sense of detention is, in a way, as inimical to cure as were the cells and fetters of the eighteenth century.

In the ideal asylum the most important building must be the acute hospital. Here it is that every patient, unless hopelessly incurable, is admitted, and during his stay in this hospital his future life is probably determined, whether he shall recover and go back into the world, or whether he shall pass on to the main asylum for the remainder of his days, to eke out an unhappy existence at a cost of more than 30*l.* a year to his country. On every ground we cannot afford to neglect anything—consideration, care, or money necessary to produce a building—which affords the doctors the best opportunities for treating and curing their patients. Any money thus spent will prove the truest economy in the end.

The various parts of his ideal asylum having been discussed in detail, together with the engineering works, internal fittings, laundry, systems of heating and ventilation, &c., the author concluded his paper by a reference to the cost. He was of opinion that a well-built asylum, designed on liberal principles, and fitted with all modern appliances, cannot be erected for much less than 300*l.* a bed. Twenty-five years ago Nottingham Borough Asylum cost 170*l.* a bed. But that the increased cost is not out of proportion to that of other building works is shown by the report of the Metropolitan Commissioners, where the cost of fifteen asylums erected before the year 1845 is stated to have averaged 200*l.* a bed, some even then approaching as much as 300*l.* a bed.

Dr. E. M. Cooke, one of his Majesty's Lunacy Commissioners, said it gave him much pleasure to propose a vote of thanks to Mr. Hine for his valuable address. No medical man who had watched the subject could fail to appreciate how much they were indebted to the members of the architectural profession, and in particular to Mr. Hine, for the excellent accommodation now provided for the insane poor. There were critics who said that we were working too much in a groove, or too slowly, in regard to the planning and construction of our asylums, and that we were behind other countries, and Germany especially, in our slowness to adopt the cottage style of building rather than those of the usual institutional type. He, however, thought that we had been wise in hesitating to make any great change in the principles of hospital construction. It must be borne in mind that many of the so-called lunatics in German asylums were of a very mild type, and in this country they would not be considered suitable for asylum treatment, but would be dealt with in workhouses, or would remain in their own homes. He thought it did not follow, therefore, that what had been found necessary in an asylum like that at Alt Scherbitz, where the cottage system was largely in vogue, would answer in this country. He was in favour of having in all asylums of any size, a separate or detached building or hospital for the segregation and special treatment of all cases which presented any prospect of cure, but he by no means agreed with the idea of locating in scattered villas all, or nearly all, the chronic cases of an asylum. He was convinced that such a plan must add to the difficulties of administration and supervision, and tend largely to increase the cost of maintenance. In every asylum there were, no doubt, a certain number of well-behaved chronic lunatics, at the outside not more than 10 per cent. of the population, whose lives could be rendered happier in buildings more like their own homes, and for these detached cottages might be built; but he would continue to treat the great bulk of the chronic cases in a large main building, as had hitherto been done. He thought that one of the greatest steps in modern asylum construction had been the splitting up of the acute wards in which the noisy, violent cases were located, as was done in the Headingley Asylum, where the acute ward had very wisely been divided into three small rooms, so that the number of patients in each would be comparatively small. Such a system must, he felt sure, tend to reduce excitement and prevent difficulties amongst the patients. He thought a little more attention was needed in regard to single rooms. In many of our old asylums, of the badly-ventilated, badly-lighted, and badly-warmed kind, the single rooms were occupied by the noisy, violent patients and those who were degraded in their habits. It was most essential that there should be no corners, cracks, or flues where any filth could lodge. Mr. Hine had indicated a preference for the plenum system of heating wherever it could be adopted. His (the speaker's) experience tended to make him prefer steam coils. He was against flues wherever they could possibly be avoided in asylum construction; so many of the patients had such unfortunate habits that, although architects might do their best to put the flues in such a position that they could easily be cleaned out, in practice they were not cleaned out, and sooner or later they became sources of much that was objectionable. He did not think sufficient attention was paid by some architects to the size of the airing courts, and in one or two recently-constructed asylums the airing courts were cramped and prison-like, and the patients when turned out were huddled together and surrounded by iron fences, in some cases 7 ft. high.

Dr. Urquhart, in seconding the vote of thanks, said that those who practised in these asylums had a very high opinion of Mr. Hine, who had for some time been an hon. member of the Medico-Psychological Association. Mr. Hine had been very modest in his paper, as he (the speaker) was reminded in thinking of Claybury Asylum. The site of that was an extremely difficult one, as the architects who entered into competition discovered. The valley at the top of the hill was some 80 ft. deep, and it required a good deal of consideration and time to solve the problem. But even Claybury was getting old-fashioned. We had gone from the West Riding, Wakefield, Asylum—which was an extremely interesting building to all architects as one of the earliest asylums planned by an architect in conjunction with a man who had had practical experience with the insane, and it became the model of many asylums in this country, and was at the time it was built a very great advance in England in regard to asylum planning. That building was still in use to-day, although it had been varied in many respects. It embodied

the germ of the notion shown in the East Sussex Asylum, and if any architect was desirous of knowing what was the best and latest in asylum work, he should study the detail and plan of that building; doctors thought the building was as far as could be gone on the lines laid down. Perhaps the best American asylum was the St. Lawrence State Asylum, which was a collection of small asylums, probably containing 300 or 400 patients each. The cost was enormous, and the idea had not been imitated there. In England lately the process of devolution had gone further, and, as Mr. Hine had mentioned, a scheme had been prepared for the Edinburgh Parish Asylum, though the ratepayers were up in arms against it, and he did not know whether those charming villas and cottages and the village church, hall, and reading-rooms would be carried out. The Aberdeen Council and Mr. Marshall Mackenzie, their architect, had decided that their new asylum should be built entirely on the segregated principle. On the subject of heating, in a small town in America he had visited the whole town was heated by steam from central boilers, the inhabitants being charged so much on the ratable value of the houses they occupied, and they themselves turned on the steam for heating. We move more slowly in this country, but Mr. Hine had inaugurated that system in the asylum world, and, no doubt, the sane population would have the advantage of it later.

Mr. Clifford Smith said that the temporary buildings referred to were, he knew, not altogether beloved by architects, seeing that they were built of galvanised iron. Yet the great idea in constructing temporary buildings was not so much to save money as to get speed of construction. It was desired to get buildings rapidly, and the only way that could be done was to put up those that could be speedily constructed, and without any special preparation of plans; and, as a consequence, the ratepayers spent 173,000*l.*, at the rate of 100*l.* a bed. Therefore, though they were comparatively costly, yet for the reason that the London County Council wanted them they were cheaper at the time, because they accommodated people who otherwise would have been sent out of London, and therefore they served their purpose. With regard to the question of asylums, he had had occasion to visit some of the more ancient asylums belonging to the London County Council—Hanwell, to wit—and he must say that he never went from Hanwell to Claybury without being struck with the charming difference in favour of Claybury. The difference was so very marked, and the advantage so very patent, that nobody with a trained eye, or even without a trained eye, could fail to appreciate the improvement that had taken place during the period that had elapsed since the Hanwell Asylum was built, 1831, to the time of the building of Claybury in 1887. The difference was most marked, and the advantages to the people were as great. Again, an asylum well designed was more cheaply maintained; heating, electric lighting, cooking, laundry-work, hot-water service—all these points represented hard cash, and he was bound to say that Mr. Hine had given them in these respects the greatest advantage that they would get in their modern asylums in comparison with the older ones. With a central boiler-house, and the whole arrangements radiating therefrom, they got the maximum result with the minimum of expenditure. With an asylum accommodating 3,000 patients they had to write off one and a half to two tons of coal per patient per annum, and it would be seen at once that if there could be any economy at all in a pound of coal extending over 4,000 tons a year—if they could get another ton of water raised to a pound of coal—there must be a gain; and at Claybury they had all these benefits, and they showed an improvement on the Heath Asylum. Mr. Hine rather surprised him when he stated that while he advocated the use of a central boiler-house and the utilisation of exhaust steam, yet at the same time he did not think electricity should be used for driving machinery. He thought Mr. Hine had concealed that secret very well. It showed how considerate he was to those who were called upon to work with him, when he had allowed him (the speaker) to have his own way at Heath Asylum in that particular respect. It was probable, however, that they should be able to make a comparison between the arrangement Mr. Hine had adopted in the new asylum and the arrangement they would probably adopt at Heath Asylum. With regard to heating, Mr. Hine advocated the plenum system where suitable, and Dr. Cooke spoke of steam heating without flues. His experience was—and he had had to deal with seven of the London County asylums, where they had installed almost every type of heating—high-pressure water, low-pressure water, the plenum system, the semi-plenum system, low-pressure steam, and medium-pressure steam—that the low-pressure steam arrangement, with a radiator in the wall and the pressure immediately behind it, and with a proper outlet for vitiated air, gave the best result, the condition being always established that too high a pressure of steam is not maintained in the radiator, to "burn the air," if he might use that expression. He found that if they did not exceed 205 degrees in the steam radiator they got very satisfactory results, provided there was a proper fresh-air inlet.

Mr. P. Gordon Smith said that in looking at some of the plans he was somewhat puzzled as to the arrangements which were best for adoption. For instance, he was troubled very much in regard to aspect in some of these buildings, for what appeared right on one side for aspect must be, it seemed to him, wrong on the other side. He was surprised, also, at the construction of wards for four rows of beds in these new asylums, for he knew that in 1867 a committee known as the Cubic Space Committee condemned that form of ward, and the Local Government Board had for some years given up sanctioning that form of ward for Poor Law buildings; and yet it was found in the up-to-date asylum—a Poor Law building of another kind! In regard to the isolation hospitals, he did not understand why they should be different from those of an ordinary village community; in one of the plans there seemed to be no arrangement for isolating one disease from another. Perhaps it did not so much matter in a lunatic asylum, where there was such absolute control over the inmates and so little chance of their contracting infectious diseases. Still, the arrangement was very different from that advocated in the Local Government Board memorandum on the subject of isolation hospitals.

The vote of thanks was then put to the meeting and heartily agreed to.

Mr. Hine, in reply, said he agreed with Dr. Cooke's suggestion that more attention should be given to single rooms; but when it was considered that a fourth or a fifth of the whole number of patients in an asylum occupied single rooms, it would be seen that great increase in the space would be required, and the difficulty of planning would be greater, and also the cost of those single rooms required to be enlarged. Architects, who knew the great cost of building asylums, shrank from adding largely to the expenditure, as they would do if they increased the size of so many rooms. With regard to the statement that he was in favour of the plenum system of heating, he was afraid the words he used were a little misleading. He said that there were advantages in the plenum system over others, and he thought there were; but there were also great disadvantages. If they could get the plenum system without its disadvantages, he should say it would be quite an ideal system. Perhaps he might refute the suggestion best by stating that he had erected eight asylums since the one referred to, and in not one of these was the warming on the plenum system. With regard to the question of aspect, referred to by Mr. Gordon Smith, he should be glad if Mr. Smith would suggest how they could get a perfect aspect to each ward. No doubt, if the asylum could be extended all over the country a perfect aspect might be secured. But it must be remembered that each block must be brought within reasonable distance of the administrative centre, and one could only give the best aspect one could under the circumstances. As a rule, the best aspect was given to the day-rooms of the patients. Mr. Gordon Smith had also called attention to the dormitories with three or four rows of beds. In hospital wards and wards where patients were in bed in the day time, it was never usual to construct them with more than a double row of beds. In wards which require supervision at night it was necessary to get a certain number of patients within the hearing and sight of the attendant, so that it was sometimes necessary, particularly in epileptic wards, to have three and sometimes four rows of beds in a dormitory, where the patients were very rarely in bed in the daytime. Mr. Gordon Smith, in his remarks about the isolation hospital, must have been confusing the acute hospital with the isolation hospital. He had not shown a plan of an isolation hospital, but each asylum had a small hospital for infectious diseases, where the cases could be isolated. They were constructed very much on the lines of the Local Government Board isolation hospitals.

A vote of thanks having been accorded to Dr. Hayes Newington for reading Mr. Hine's paper, the meeting terminated.

The next meeting of the Institute will be held on the 25th inst., when the President will read an address to students, and Mr. J. A. Gotch, of Kettering, will offer some critical remarks on students' drawings, after which the prizes will be presented by the President.

THE WEST FRONTS OF THE ENGLISH CATHEDRALS: A COMPARATIVE CRITICISM.*

IN making some observations on the west fronts of our English cathedrals, I beg to say in the first place that I am not essentially or professedly an archæologist, and that although many of these fronts, as they now stand, present a curious record of changes and altered intentions and interrupted designs, on some of which we may touch in passing, the consideration of them in this historical aspect is not my present object. I am inviting you to consider and compare them from a purely architectural and critical point of view. I think there is hardly enough of this purely critical spirit in our usual manner of regarding ancient and especially mediæval architecture. By "critical," of course, I do not mean necessarily fault-finding, which, in fact, is not the true meaning of the word criticism—a word often much misused; it means really rational appreciation of merits and defects. We are too much in the habit of regarding mediæval architecture from a merely archæological point of view; finding a great interest in tracing out the causes and the history of various apparently anomalous incidents in their existing design; hunting out the original design of a Norman façade or transept end from indications built up with the later masonry, or the reasons why a string-course of a certain date suddenly stops short at a point where there seems no obvious reason why it should have stopped. All mediæval buildings of any size and extent are full of puzzles of this kind, arising from the naïve manner in which the mediæval builder totally disregarded what his predecessor had done, if it came in his own way. These innumerable little problems no doubt give a greatly added interest to the study of our cathedrals; but it is an interest historical rather than artistic; and it has exercised, not seldom, an unholy fascination on the custodians and the restoring architect of the building. With trouble and ingenuity and much reasoning, in the sweat of our brain, so to speak, we have made some portion of the building yield up its secret, we have got a notion what the first and original builder had erected or intended to erect; and then, of course, people think, shall we not use this hardly-acquired knowledge in order to restore what was or what should have been there? We know only too well to what pernicious lengths this temptation has decoyed respectable and well-meaning persons. But even when we look at mediæval buildings purely for their architectural effect, we are too much accustomed to assume an attitude of mere indiscriminate admiration, as if we had no right to find fault with them. This is not either reasonable or altogether instructive. The architects were human like ourselves, and it is more to the purpose to regard their buildings just as we should a piece of modern architecture; and if one is finer and more effective than another, to consider why it is so, and what are the reasons of comparative failure and success. Moreover, such a comparison, as I think we shall see, leads to some conclusions which have an important bearing on our estimate of mediæval architecture, and also suggests some points in regard to the *rationale* of what is called restoration.

Now there are some special reasons for selecting the west fronts of the English cathedrals for this kind of comparative criticism. In the first place, there has always been a kind of

* A paper read by Mr. H. H. Statham before the Sheffield Society of Architects and Surveyors, on Thursday, February 14.

tacit feeling that the entrance front of a great building should have some special treatment to emphasise and render it effective. It is the most prominent face of the building, and the one which meets our view as we approach in order to enter it. The practical convenience, too, of having some kind of portico immediately before the entrance of a building, so that when there are crowds who may have to defile slowly through the actual entrance door they may have some cover till they can get up to it, gives an excuse for a depth of treatment and recessing for which there is often not the same excuse on any other face of the building. The entrance, too, is a peculiarly important feature, as the link between the exterior and the interior architecture. In too many modern buildings we find this recognised in a very false spirit, in buildings in which all the funds available for embellishment are expended on the principal street front, leaving the rest plain and generally carried out in an inferior material. This is the fruit of that despicable modern virtue of economy, one of the greatest hindrances to modern architecture, but a virtue especially worshipped in this practical and commercial nation. Perhaps also this vice of having show fronts to a cheap building is partly promoted by the unhappy spirit of sham and making "the best show with your money" which is essentially a characteristic of modern life. I do not recollect that there is any example in ancient architecture of a show front attached to a building the remainder of which is carried out in an inferior material. But both in mediæval and Renaissance architecture the desire to make an impressive entrance façade appears to have been a recognised object in a great majority of cases. In the Renaissance period in Italy this was so much the case that the front was sometimes built up at first with a mere bare enclosing wall to keep out the weather, until funds should be available for building a grand façade. In the case of Florence Cathedral the façade was in fact never completed till the middle of the nineteenth century; and, as you will all remember, there was a few years ago a great international competition for a new front to Milan Cathedral, which, in spite of the death of the architect of the selected design, it is, I understand, still the intention to carry out. In England this Italian precedent was followed in the case of the Catholic church called the Oratory, at Brompton, which has only recently received its entrance front. Whether this practice of leaving the entrance façade for a possibly indefinite period a mere blank wall, in the hope that a future generation will treat it architecturally, is a desirable one, may be open to question.

Apart from the general interest of entrance façades, there is, however, a particular interest, among mediæval buildings, in those of the English cathedrals, in respect of their remarkable variety of design and conception. In France the general type of design of the west front of a cathedral is very well marked, and seldom varies; two towers, and the end of the nave showing between them. But in England, except in the case of those in which a specially designed façade has hardly been attempted, there is not one which resembles another; they are all distinct architectural conceptions. I do not think the importance of this fact, in its bearing on our estimate of English mediæval architecture, has been sufficiently appreciated. I shall have a word more to say in regard to it at the conclusion of this paper.

As to the architectural morality of façades in general, there is an especial reason why some such treatment was almost necessary in the case of mediæval cathedrals. The central pointed roof, with the sloping roofs of the aisles at each side of it, is a very good and satisfactory constructional profile when seen in section, but it is an exceedingly weak profile when seen as that of the exterior termination of a building; unless in the case of a small parish church, where a picturesque simplicity is all that can be aimed at. When a building is on a large scale, and anything like grandeur of effect is desired, it is inevitable that such a profile as this should be masked in some way. This is strikingly illustrated in the west front of Tewkesbury Abbey-church, the centre portion of which is a remarkable example of the attempt to give dignity and impressiveness to the entrance by filling the whole with one immense and deeply recessed arch, one of the finest things in English mediæval architecture, and which seems like a kind of forecast of the treatment at Peterborough Cathedral. But you cannot fail to observe what an exceedingly weak effect the sloping lines of the aisle roofs have in comparison with the bold square treatment of the centre. In this case we have two different principles of treatment combined in one front; the end of the nave roof is masked; that of the aisles is not.

We may distinguish two main principles in the treatment of the west fronts of cathedrals. Reference has already been made to the type usual in France; the two towers stopping the ends of the aisles and allowing (in general) the end of the nave roof to be seen between them; and this we may distinguish as the French type. The other method is that of erecting a screen in front of the whole section of the building and letting the roofs abut against it. This is a method so largely followed in Italy, that we may call it the Italian type. There is no doubt that the French method is the more dignified and the more truly architectural. The basement story of the towers forms a porch to the aisles in a natural and appropriate manner, and the space between them allows the gable of the nave to assert itself. When used on the great scale of height found in many of the French cathedrals, and in such a building as Cologne, for example, it has the drawback that it is impossible to produce anything at the crossing which will dominate the western towers, and the façade assumes almost too great importance in comparison with the rest of the building. The Italian method is much more manageable, and, as at Florence and St. Peter's, allows the central feature to predominate. An objection often raised to it is that it is in some sense a sham, but I hardly think it need be regarded in this light. There are so many minor details in architecture which require a "stop"—cornices, mouldings, &c. This is only the same principle applied on a larger scale—a "stop" for the whole lines of nave and aisle roofs. It must be admitted, however, that when you get to the side or to the back of it, the Italian method in its pure form, as seen at Salisbury, for instance, has a weak effect.

The English fronts can all be grouped more or less under one or other of these types, though in some cases the Italian type has been so modified and improved in its application as to nearly lose its objectionable qualities, and become an exceedingly artistic architectural development.

The problem to be solved in treating a front of the Italian type is, while masking the weak line of the triple-aisle section, at the same time not to ignore it, but sufficiently to indicate its existence by the position of doors, windows, and other features in the façade. That is the first point; the second, which applies equally to both types, is that there should be a distinctly predominant idea in the design, to which all the details are subordinated. The best and most truly architectural effect is not to be obtained by sheer richness and multiplicity of detail. There must be an effect of contrast and the evidence of thought in the design, and the absence of these qualities is not to be condoned merely because the building is six or seven hundred years old. Architecture no doubt was a different thing then, in a sense; it was more of a national and less of an individual art; but there was good architecture and bad architecture all the same; and we cannot get the best lessons from ancient architecture unless we recognise that fact, and regard it with a discriminating and not a slavish admiration.

The Durham front, of which the plan was laid out and the lower portion built, up to the level of the nave walls, about 1130 or a little later, was, like most Norman fronts, of the French type, and of extraordinarily bold and grand design. The towers, though they form porches to the side aisles, are spread out laterally considerably beyond them, and, occupying each a square of about 44 ft., while the width of the nave is only 33 ft., the proportions belonging to the section of the nave are reversed; the side masses are the widest and the end of the nave seems narrow and squeezed in between them. There is a certain falsity and bravado about this which, however, is compensated for by the broad and massive proportion of the towers. Regret has been expressed that the Norman design was not carried out completely; the effect would have been more homogeneous no doubt, and we should have escaped the somewhat incongruous effect of the late pinnacles and parapet, which seem a too light and fanciful termination to towers of which the lower part is so sternly plain. I must confess, however, that I cannot bring myself to regret that the upper portion of these towers was completed in the Transitional period. Contrast, as already observed, is an important source of effect in a façade; and it almost seems here as if the richer yet perfectly restrained treatment of the upper stories, with their rows of arcading, supplied just what was wanting to give an effective yet not inharmonious contrast with the stern mass of the lower walls; as if the Norman artist had been employed up to the point at which his manner of work was most effective, giving a rock-like base to the towers, and the Transitional artist had stepped in just where æsthetic considerations called for his hand. He made, however, one mistake. But for his entering on the scene, it is probable that the small enriched wall-arcading which runs across under the gable and finishes on each adjoining buttress of the towers, would have been carried right across the front, binding the whole together in a manner which is now rather wanting. It is evident that the Norman builders' work had stopped at the string below the line of this arcade, except at the centre and on the innermost walls of the towers, which had to be carried up a little higher to meet the end of the nave walls; and it is a curious example of the indifferent way in which these ancient gentlemen went to work, that the Transitional builders should have totally ignored this obvious and important feature in the design as projected by their predecessors. In the main, however, they did nobly, and I am inclined to think the towers are finer objects now (always excepting the pinnacles, which are out of keeping with the whole) than they would have been if the Norman design had been carried out complete. The weak appearance of the screen gable, which (as in many other instances in mediæval architecture) does not in the least coincide with the actual section of the nave roof, is a serious defect; and the large decorated tracery window, inserted below, though a fine one in itself, is painfully out of place there, appearing quite crushed by the mass of plain walling around it. As regards the architectural composition, it would have looked far better had the window been made to follow and fill up to the circular Norman wall-arch above it; but at that time such a piece of accommodation could not be thought of; pointed arches were the order of the day, and there was no salvation outside of them: whereby we may gauge the difference of the attitude towards architectural design in those days and in our own.

Lincoln is, in a sense, one of the most interesting of all our west fronts, though (or some may say, because) it is a kind of medley of two opposing ideas struggling for the mastery; a blend of the Italian and French types. As first planned by Remigius in the latter part of the eleventh century, it was a French front, with the preparation for two towers which, in the most orthodox fashion, marked the termination of the aisles, the internal width of the towers being probably coincident with that of the aisles, though the thickness of the tower walls gave a certain external projection. The nave was widened by 5 ft. on each side when it was rebuilt in the Early English period, and hence the inner side walls of the towers do not now coincide with the line of the nave arcade, as they originally did; but I have no doubt the inner face of the Norman aisle walls coincided, as the present aisle walls do, with the inner face of the tower walls; in other words, the outer wall of the nave was rebuilt on the Norman foundations; because a reference to the plan will show that, according to usual proportions, the aisles are too narrow; the centre compartment was widened, the aisles were not. The second stage of the west front, in the Transitional period, was the erection of gables adorned with arcading over each of Remigius's large arches, as over the three great arches at Peterborough, which the whole composition at this stage must have somewhat resembled, and perhaps even suggested it. The change came when the nave was rebuilt under Bishop Grosseteste, *circa* 1230, when a façade of the Italian type was planted on, and as an extension to, the Norman façade. This was all part of the ambition and emulation of the period; the effort of one establishment to outdo another in the striking character of its western façade; so that it is evident that the mediæval clergy fully appreciated one motive which has been

suggested for a special treatment of the entrance front—that of forming a kind of advertisement. Cathedrals might be dedicated to a saint, and built professedly to the glory of God; but there was as much human nature about it, after all, as in building a railway terminus: each new company tries to build a more imposing station than the last one. In the present case there was evidently some unwillingness to meddle with the bulky walls of the Norman towers; the easiest way to increase the ambitious character of the front was to spread out a screen on each side of it, so as to widen the whole composition, and then to make it rich with diversities of arcades. Finally, in the Early Perpendicular period, the towers were at length carried up and emerged from behind their screen. Up to the beginning of the last century they had small spires or spirelets, which were then removed, probably because they needed repair, and it was cheaper to pull them down; a good enough reason in the Georgian era. It should be noticed too that when Grosseteste built the new nave, the gable of which comes out through the Norman front, he altered the centre arch to a point, to harmonise with the new work. It may also be noted, in comparing Lincoln with Durham, how much more satisfactory is the effect of the gable, which really represents the section of the roof, in comparison with that fallacious gable at Durham which stands up flat by itself.

A good many harsh criticisms have been made on Lincoln front, and it cannot be denied that, as a whole, it has little claim to be considered a design; it is a picturesque medley, though a most graphic piece of architectural history. Yet I owe to it one memory of an effect that will last my lifetime. I first saw Lincoln in company with the first Architectural Association excursion organised by the late Mr. Edmund Sharpe, I do not know how many years ago. On the third day of the ceremonial we were driving back into Lincoln after a glorious summer's day spent among some of the neighbouring churches. After climbing the long hill up to the town, rather in shadow, our vehicles made a turn round into the open space in front of the cathedral, and we came suddenly on this façade, with its naturally warm-tinted stone absolutely golden in the strong rays of the setting sun. As a piece of scenic effect, coming on one as a sudden surprise, it was magnificent. One forgot all about the questionable details in the glory of the picture as a whole.

Ely is the one front of the first importance which cannot be referred either to the French or the Italian type. It is a unique conception, resembling nothing else among our English cathedrals. It may be said to be the Italian screen type with a great tower interposed in the centre; the screen extends far beyond the main plan of the nave, and behind it, at each end, is a small chapel outside the line of the aisle walls. It will be remembered that the treatment of the crossing at Ely is supposed to have suggested to Wren the plan of the same portion of St. Paul's; but there is another point of similarity which has not been so much remarked upon, but which can hardly be accidental. The plan of the west front of St. Paul's, like this, extends beyond the line of the nave and has a small chapel behind each projection. In the middle of the thirteenth century the west front of Ely, as originally designed, might have been seen in its entirety. The line of the tower, just sufficiently projected to define it, was seen down to the ground, unscreened by the Early English Galilee porch now erected in front of it, and which certainly does not improve the composition architecturally. There can be no doubt that, like the small building between the great piers at Peterborough, this porch, however a ritual use and name might be assigned to it afterwards, was originally placed there for purely practical reasons, in order to afford a better western abutment to the tower arches. The tower ended at the string below the present octagonal lantern and turrets, and was probably crowned by a lofty timber spire with spirelets at the angles;* the angle turrets, without the battlementing, by smaller octagonal spirelets of the same type. For a finish to the tower I think the present lantern, though weak in detail and so far out of keeping with the rest, is finer and more effective than the wooden spire, and the building has gained by the alteration. It is a noticeable point that the usual three doorways, to nave and aisles, are not found at Ely, there being only one central doorway. This is in keeping with the general character of the design, in which the centre is strongly emphasised.

When this façade was complete in its original form it was one of the finest, best balanced, and most artistic architectural conceptions of its kind to be found in England or anywhere else; in spite of its originality and individual character, there is in it no straining after effect, no touch of eccentricity; it is a noble and dignified architectural design, marked by repose and breadth of effect. As you all know, the northern side of the screen fell down, there seems to be no precise record either when or why; unless there was something *very* wrong with the foundations, one is almost led to suppose that it was a piece of wanton destruction. One of the interesting questions which crop up in connexion with our subject, is, whether it would be worth while, and a right thing to do, to rebuild this destroyed portion after the model of the south side, and thus once more complete the design. I am decidedly of opinion that it would be. No one is more opposed than I am to that kind of restoration which consists in polishing up ancient work to make it look "as good as new," or to that which consists in conjecturally restoring some vanished feature from a few fragments, just because something of the kind is surmised to have been there before; as Scott absurdly did with the pyramidal termination of the south choir aisle at Chester, and Mr. Pearson did with the double cloister, as he called it, at Westminster Hall. Such restorations are neither architecture nor history. But it is a quite different matter when a repeating portion of a complete design has perished. It was perfectly justifiable to rebuild the fourth side of the cloister at Chester, which had been pulled down; it was simply making the design complete again by replacing a portion for which the other three sides afforded the model. And it is the same with Ely. The north side was identical in design with the south side; it has been destroyed; why not reinstate it, taking the south side as the guide? I have heard indeed one argument used against this class of restoration, to the effect that no one would think of restoring a missing limb to an antique statue; but the argument is absurd; the two cases are not in the least analogous. No one can say what the position or modelling of a missing limb in a statue may have been; sculpture imitates Nature, which is capable of infinite varieties of movement. Architecture does not imitate Nature, and architectural design is in the majority of cases symmetrical—in the case here referred to we know that it was so; and the reproduction of such conventional features as turrets, mouldings, and arcades, to repeat a design still existing on the other side of the axis line, is a perfectly different problem from piecing a statue.

Peterborough is a front of exactly the opposite character to Ely. While the latter, as already observed, is specially marked by repose and a perfectly logical balancing of parts, Peterborough represents an inspiration of genius which disdains all ordinary considerations of logic—a passionate desire to do something great and astonishing and unprecedented, even at the cost of reasonableness and the proportion of things. The three great arches, regarded as a portico, are entirely out of scale with the whole building—out of scale, too, with the real requirements of a portico. All this we can easily say, and, for all that, I must agree with Fergusson's judgment that as a portico it is the grandest and finest in existence. It is true that all the rest of the building is an anticlimax, for only giants could have built anything that was not; but we may well be thankful for having one portico at least on a colossal scale, even if it was impossible to have the whole building to match; and it is curious that, great as is the contrast with Ely, it is to Ely indirectly that we owe it. It is the human weakness of emulation over again. Peterborough was to have had a flat front, with square towers projecting half beyond the line of the aisle walls. But while this was half finished arose the new and striking front of Ely. "Brethren, shall we be outdone, almost within sight of our own doors? Go to, let us build something that will take the conceit out of Ely." And truly they did it, only, unhappily, they looked not warily to the foundations, wherefore their great conception has been in imminent danger of falling over. It is a curious contrast that while Lincoln at first had a front of three great arched recesses, and then proceeded to embellish it by projecting a screen design each side of them, Peterborough ended with the three great arches as the culminating effort. One hears the question sometimes, Why is the middle bay narrower than the others? But that is the wrong way to put it. The question is, Why are the side bays wider than the middle one? Nor is there any mystery about it. The position of the centre piers was settled by that of the doors and piers in the first intended front; the increased width of the outer bays is simply for glory. They could not conveniently make the centre bay wider than they did, but at least they would spread out with a wider sweep in the side bays. The three gables, however, are made to range, and rightly. There would have been great want of unity if they had all been sprung in the same manner and with the same rake, and consequently with the centre apex lower than the side ones. The difficulty, however, is perhaps hardly got over in the best way by making the gable copings abut at different levels against the intervening turrets, preserving the same rake. It is rather a clumsy way of doing it. I think that if the springing had been the same and the rake different the effect would have been better; the difference in rake would have been less noticeable and the difference in width of the arches would have fully justified and explained it. The delicate little late porch, built between the piers to bind them together, is so completely out of scale with everything around that it always appears to me an eyesore; as a constructional expedient it is a very curious example of the way in which an engineering construction in the Middle Ages was presented under the guise of an architectural fantasy. Apart from this, the weak point in the front is the design of the flanking turrets, which look far too feeble to act as abutments to that immense arcade, and the decorative arcades formed on their surface make them look still weaker; they should have been treated as plain ponderous masses, with only some decorative diversification at the top. But the mediæval builders would have said, like Hamlet's friend, "'Twere to consider too curiously, to consider so."

One can hardly mention Peterborough without reference to what may be called the great Peterborough restoration "row" a little while since. Having had the opportunity of going all over the front while the scaffolding was up, and examining the state of the vaulting at close quarters, I have no hesitation in saying that there never was a more unreasonable clamour than that which was got up in the Press to prevent the absolutely necessary repair to a structure which was in imminent danger of falling to pieces; and I feel satisfied that if the knot of architects, of peculiar opinions, who said that they could set it all right by tunnelling through the pack of the loose *débris* over the back of the vaulting and putting new backing behind the facing masonry, had been taken at their word and asked to undertake the work, they would have backed out; or if they had not, they would have dug their own graves, or those of their workmen. I should have gone further; I shou'd have said, take down the whole front and rebuild it with the same facing stones on a concrete foundation, truly vertical and with a solid and well-bonded backing. It would have been, no doubt, a most complicated and costly job, but not an impossible one, and the unique grandeur of the front is such that it would be worth while to go to the expense in order to put it on a sure basis and preserve it perhaps for another five centuries to the world. As it is, after all the fuss, I believe the front is in a precarious state. From the upper scaffold the overhang of these immense masses appears most alarming, and it is rather problematical whether, in its present state, it will last out the century, unless something more is done. The erection of the scaffold gave one, however, the advantage of being able to go all over the front and see all the detail at close quarters. I do not think anything else gives one such a vivid idea of the extraordinary and bold character of mediæval work—of its difference from everything modern—as to go up among these shafts and niches and sculptures which have been beaten by the wind and rain of centuries, till they have almost lost the appearance of being man's handiwork and look like natural pheno-

* See Mr. Beresford Pite's restoration of it in "Cathedrals of England and Wales."

mena, and to realise the boldness and depth of the mouldings and relief which seem so graceful and delicate from below, but which, viewed at close quarters, suggest the idea that "there were giants on the earth in those days."

This experience I have also had at Wells, which I had the good fortune to visit for the first time when the scaffolding for the late Mr. Ferrey's restoration was all over the front; a disappointment at the first glance, but which turned out a blessing in disguise, for I was lucky enough to elude the argus eyes of the clerk of works (for whom I had no credentials), and had time to climb all over the front and make a number of sketches of figures, caps, and mouldings at close quarters before my discovery by a conscientious foreman. Wells is more refined in detail than Peterborough, but even here the spread of the foliage carving on the caps, and the depth and intricate profile of the mouldings, take one's breath away. Wells is the sculptured front *par excellence*, and it is noticeable how completely architecturalised is most of the sculpture; the figures of kings and saints in their niches are so severe and square-cut in line that they hardly have human interest, but on that very account they are so effective architecturally; they seem not so much sculpture as architectural carving. One band of sculpture, however, there is in the spandrels of the arches just below the upper string course which runs right across the front, which is of a different type; the Resurrection series, which are as full of life as the sculptor could make them. They are all nude, which may be one reason why they were placed so high up (mediæval feeling did not tolerate nudity even in art); but whether this was the reason or not, they are decoratively in the right place; being the only figures with movement in them, they fall in naturally with the up-and-down lines of the window heads and the arcading, as the stiff statues below fall in naturally with the vertical lines of the niches. The Resurrection figures are so far weather-worn that it is difficult to judge how far they were originally well-modelled, but they are certainly full of spirit and expression, and I have always believed that they must have been done by Italian sculptors brought over; there is nothing at all like them in English work. The reality with which the sculptor has conceived his subject is remarkable: we see one man pushing aside his tombstone, and joyfully looking upward; another seated in a solemn attitude of resignation, as if waiting for his doom; a woman obviously much embarrassed at having to issue naked from her tomb; every figure has its own characteristic attitude and expression. There is a good set of drawings of these figures in some publication—I forget what; but no one can have realised fully their interest and pathos who has not stood by the actual figures, and tried to realise the thoughts and intention of the man or men who carved out this naïve, yet thrilling, representation of sinful man called to judgment.

Architecturally, the Wells front is the French type extended, so that the two towers, instead of forming the termination to the aisles, extend completely out beyond them, and the whole partakes somewhat of the character of a screen before the actual building. The design possesses in a remarkable degree two of the most important qualities to be desired; a marked individuality of treatment, and a striking effect of contrast. It is consistent with itself throughout, and totally unlike any other example in England. There is an almost classic severity of line throughout, and the horizontal divisions are more strongly marked than is usual in Gothic. The comparative plainness of the upper portion of the towers contrasts effectively with the richness of the lower portion; each story of the design is complete in itself and designed with a purpose; there is nothing accidental or careless. Were the towers intended to have pinnacles? I have never been on the top of them, and therefore cannot speak as to the actual evidence of the work; but it is quite possible the present finish was the ultimate one. It is unusual, but the whole design is unusual in so many points that this need not weigh much. I certainly prefer them as they are. The central feature of the roof line is not very well designed; and the deep cut between it and the towers is rather awkward, and seems to want something to fill it in.

Rochester is a peculiar and not very beautiful front, but it is worth attention as again illustrating the extraordinary variety in conception of these English fronts. Here again we have a design entirely different from any of the others—entirely distinct in itself. Instead of two western towers we have four turrets, and the side turrets do not form the termination of the aisles, but of the outer aisle walls; a kind of square head, on plan, at the end of the wall; the centre turrets performing the same function in reference to the nave arcades. Thus, instead of the front expressing the triple division of the section of the nave into three compartments, it emphasises the existence of the four parallel walls which divide the compartments. It is not such a fine, nor, I think, such a correct architectural treatment; but as a suggestion it is certainly interesting. It is not very easy now to conjecture how the central portion appeared as originally built. The present late battlemented finish cuts very awkwardly into the turrets, and goes far to spoil the effect. As originally built, it may have been an admirable whole, though on a rather small scale.

Salisbury as a whole is one of the most beautiful of all our cathedrals, especially in bright summer weather (it wants that to show it at its best); but the front is a vexation, and is to my mind the weakest and poorest of all. It has, to be sure, been restored to the bone, and looks terribly new and raw, but it must be presumed that the restoration fairly represents the original details, and it fails through complete want of purpose, concentration, and contrast; it is a medley of detail covering the whole face, with apparently no motive except to cover it and leave not a blank space for the eye to rest on. It illustrates, when seen from behind or at the side, the weak point of the Italian façade; a great part of the back of it forming a blank wall above the aisle roof.

The front of Ripon is a good example of the pleasing effect to be obtained by very simple and broad treatment of windows and wall, with hardly any ornament. It has one rather curious and perhaps illogical feature; it shows the three west doorways so common in cathedral fronts, and generally leading respectively into nave and aisles; but in this case all three open into the nave; the towers represent the end of the aisles, but are not pierced with doorways. The pinnacles and battlements do not of course belong to the original design; the towers were probably crowned, or intended to be crowned, by timber spires. The reticence and good taste of this front make it an instructive contrast to the fussiness of Salisbury.

Gloucester is a mere *end*, rather than a front, which replaced a Norman façade of which all external trace has disappeared. The flanking turrets of the centre are prettily treated, but otherwise there is not much to be said for it.

Norwich, perhaps, shows some indication of what Gloucester may have been. There is plenty of the original Norman work left, but so hacked about that it has almost ceased to be a design. It seems probable that it was originally something like Rochester, with a turret at the end of each of the four walls; but the turrets are much less boldly developed than at Rochester.

Worcester is another "end" which has replaced a Norman front. It looks picturesque standing over the river, but it is totally devoid of greatness of effect, and looks like the end of a parish church. The Decorated window was substituted by Scott for a Perpendicular one, as a rebuke to the mediæval architects.

Winchester is another "end," but it ranks much higher than Worcester or Gloucester, as it shows a consistent, well-defined, and rather massive treatment. The weak effect of the raking lines of the aisles, it may be observed, is much less felt with the flat pitch of late Gothic than with the roofs of earlier date; it seems to support the centre better. The design illustrates also the value of tracery for giving continuity and coherence to wall and window-space. There was, of course, a Norman front before this, which stood about 40 ft. westward of the line of the present front, but as to the cause of this alteration I have never seen any explanation suggested.

The Exeter front, of the middle of the fourteenth century, with a screen added half a century later, depends for its effect mainly on the sculpture; the screen fits badly on to the earlier composition, and is too palpably an afterthought. The whole is picturesque owing to the richness of the details, but as an architectural design it is fragmentary, and looks more so in the side view than even in front.

Southwell is an interesting example of a plain and simple Romanesque front, with a certain North German character about it, of course much interfered with by the large late west window inserted in it. The timber spires are modern; I should surmise that the original ones were rather loftier than these. The towers represent the end of the aisles. The later upper stage of the north tower has an arcade of intersecting round arches, producing pointed arches at the intersection; the arcade in the same position on the southern tower shows pointed arches. In view of the idea that has been sometimes maintained (but which I entirely repudiate) that the notion of the pointed arch arose from the intersection of round arches, this juxtaposition is a curious coincidence; but unless we had any proof that the northern tower was completed first, it of course counts for nothing.

Lichfield is one of the most beautiful, graceful, and complete of all our façades; and though exceedingly rich, the decoration is so judiciously disposed that it does not suggest a sense of overcrowding; in this it is an instructive contrast to Salisbury, where the decoration is disposed without method, and consequently looks crowded and confused. A particularly good point in the design is the manner in which the whole is bound together by the small arcading just above the ground story, carried right across the front. The towers represent the end of the aisles, but are extended slightly beyond them. The sculpture is not nearly so architecturally disposed as at Wells; instead of filling the niches and forming a part of the lines of the architecture, the greater part of it seems only stuck on the wall in the middle of the niche, with very inferior effect. It is true that a great deal of this is modern ecclesiastical mason's sculpture, and much of it very bad; but I presume that it approximately represents the proportions and position of the original sculpture; Scott, who restored it, would at all events have seen to that.

Canterbury is a completely French type of front, but deficient in marked character and in grandeur of design. The northern tower was rebuilt in 1834, and the other one is much restored and refaced, but still they represent the original design. The towers are exactly coincident with the aisles. On the whole, the front is the least interesting portion of Canterbury, but the towers have the merit of fine proportion and line, though somewhat tame architecture.

York is the most completely French in type of all our cathedral fronts, for which reason it is the favourite with American architectural critics, who think everything French is better than anything English. It will always impress every spectator from its great size (for English work) and its stately completeness; but I think nevertheless that it has been rather overpraised. It shows none of the genius of Peterborough and Wells; it is very correct but not strikingly original. It is however a design very well and thoughtfully carried out in all its details; everything is very well proportioned; the great depth of the buttresses, with their rich arcading, is very effective, and the manner in which the whole is bound together by the string-courses and the band of decoration carried right round at the point just below the gable, is very good. The only serious fault in it is in the treatment of the strongly emphasised and projecting corbel table below the balustrade, with the weathering of the buttresses finishing against the wall just underneath, producing an awkward in-and-out angle at this point; the pinnacles beginning over again and entirely disconnected from the buttresses, to which they ought in fact to form a finish. It would surely have been better if the buttresses had been carried partly through the corbel table and the pinnacles connected with them.

In observing that it is (in every respect but this) a design "thoughtfully" worked out, it is necessary to realise that these towers are of three different dates. The lower portion is early decorated; above that to the roofs, is late decorated; the upper stages are late fifteenth century. The difference of dates is obvious enough when we come to regard the details; but it is certainly remarkable what care the builders of the later portions seem to have taken to conform the general lines of the towers to one design; so that at a distance and apart from the details they might very well pass for towers built all at once by the same generation of men. This is an unusual circumstance in mediæval work, where in general the builders of one age did not care the least whether they spoiled or contradicted the design of their predecessors; and it looks

very much as if the towers had been carried out from a completely preconceived design which was expressed in a drawing, and had been conscientiously followed throughout. If not, the complete harmony of proportion of the whole is very remarkable and indeed almost inexplicable. The gable, it may be observed, correctly represents the rake of the roof, and the towers exactly represent the aisles, not even showing the slightest extension beyond the aisle walls; a very tame conception as far as plan is concerned at all events.

Westminster Abbey front has been so knocked about and restored and refaced that it has little real architectural interest now; and perhaps its chief value consists in the fact that the upper portion of the towers is the work of Wren, and that they form at once an example of Wren's unfailing sense of proportion in general design, and of his utter inability to understand the character of Gothic detail, or its value. Whether Wren intended to erect towers in the style of the rest of the building, and thought that he had done so; or whether he thought that he was substituting a superior kind of detail to that of the barbarous Gothic, and did this intentionally, we can only guess; but I think the latter is the true reading, and that he considered he was improving Westminster by an addition in a superior kind of architecture.

These towers serve, however, as a transition to our one classic English cathedral. The front of St. Paul's is essentially the French type, with the towers extended considerably beyond the line of the aisles (not the full width however), and with chapels in their rear somewhat resembling, as already observed, those in a similar position at Ely. The real life of this front lies in those beautifully designed towers, among the best things which Renaissance architecture has produced; or rather, we should perhaps say, the upper stages to the towers, for the tower character is nearly lost below through the continuance round them of the two stories of orders, destroying their vertical effect; but when a man has once sold himself as a slave to the Orders they will exercise this kind of tyranny over him. It is a pity that by putting a clock in the circular opening of the south tower their symmetrical expression has been destroyed: those two openings were not, I fancy, intended for clocks at all, but simply as sources of shadow and effect. At all events, if there is to be a clock in one, they might as well put something else, say a barometer, in the other; instead of leaving a dark socket on one side and a fish-like eye on the other. The middle portion of the front does not express the structure of the plan; for though the second couple of columns on each side of the ground-floor portico is coincident with the nave arcade, the point is not emphasised in any way, at least not in the colonnade itself—the tyranny of the Order again, perhaps; but still it would have been quite possible to have treated these and the end columns differently from the rest. The deep recess of the centre of the portico has a fine effect of shadow, and reminds one how much this element is wanting in the flat treatment of the rest of the exterior. I have seen bitter criticisms made on Wren for the sin of using coupled columns,—a criticism which seems absurd; the coupled columns have a very good effect, and as a matter of construction they really afford a better seat for the entablature than a single column does. It can hardly be said, however, that this would be a remarkable front were it not for the cupolas.; they are what give it its real value; and they can perhaps hardly be praised too highly.

There is one point in regard to which, I think, the comparative consideration of the west fronts we have been looking at is very important in its bearing on our view of mediæval architecture. I have several times referred, in going through them, to their remarkable diversity in conception and treatment, a diversity much greater than that to be found in an equal number of the most important French cathedrals. This fact, it seems to me, is quite at variance with the theory, supported especially by William Morris and critics of his school, that Gothic architecture in this country was entirely the work of what we should now call masons; artisans working spontaneously on the ground of a common tradition. True, this common tradition is shown in details, which for each period are all on the same pattern. But if there were no influence but this, surely our west fronts, not to mention other important features of the buildings, would also all have been alike at the same period. But, as we see, they were as different as possible; even startlingly different. When Peterborough wished to eclipse Ely, whose new front had just been finished, they produced a front so utterly different in architectural idea and conception that, as far as the general idea is concerned, one would hardly think the two belonged to the same country. What are we to gather from this? Surely that these various designs were each the work of one independent man of genius, evolving his own architectural idea from his own inner consciousness. There are those who will tell you that there were no architects then; it is even asserted that it is the architects who prevent there being real architecture now. I take that to be nonsense. It is only the name that is new. There was no one called an architect in mediæval England, but there were persons whom we should call architects if they lived now, and they designed the fronts of Peterborough, and Ely, and Wells. Those productions were no mere mason's work.

And in what consists the grandeur of effect, the impression produced on our minds, by such works as these? It is strange, if we come to think of it, that we should feel the impression of power and sublimity from erections so relatively small—mere dots in comparison with the extent of surface of the globe. It is not mere material size that does it. A small hill is much larger than a large cathedral, but it does not impress us so much. Imagine three natural caverns the size of the three arches of Peterborough; would they produce on us any special impression of sublimity? What is it then? It is the shaping power of human intellect that gives the buildings their effect; it is the expression of human aspiration that appeals to our sympathies. The soul measures things by its own standard. As Browning says in "Sordello":—

> "A sphere is but a sphere;
> Small, Great, are merely terms we bandy here;
> Since to the spirit's absoluteness all
> Are like."

The mere material scale of the building is the human figure: the grandeur of the Peterborough portico is not in its absolute size, but in its size relative to the mere bodily scale. The body can enter through a very small door: it is the soul that demands the expression of its dignity, its aspirations, in the great arches of the portal. For all architecture is a symbolism.

THE STATE OF LONDON STREETS.*

THIS day twelvemonth a most valuable paper on "The Insanitary Condition of London Streets" was read here by Mr. W. Nisbet Blair, the Engineer at that date of the Parish, but now of the Metropolitan Borough, of St. Pancras. It may be that this change of name has something to do with the invitation given me to open this discussion, for our new municipalities are recognising their enlarged powers and their heavier responsibilities, or it may be that the subject, always before us and always growing, has sprung up again with the promise of spring.

I refer you to Mr. Blair's paper, with nearly every sentiment in which I agree, for a great deal of useful information, the result of his large experience. My own duty is to occupy a more limited field. Like many more, I have always been compelled to rely largely on my own unassisted senses of sight and smell, and for me bacteria and bacilli might grow in peace until they were visible to the naked eye. If I ask you to agree with me that our streets are dirty and ought to be cleansed, it is because I can see the dirt and know that the means of cleansing are well within our reach.

I will not say, as some have said, that London streets are the dirtiest of any to be found in the cities of Europe, but amongst the great Continental towns that I have seen, whether capitals or not, there is nothing similar to them. In all such towns the streets, however they may be paved, are kept clean, chiefly by manual labour and the use of water, which, in summer at least, is employed, not only for washing away the slush or to keep down the dust, but for the pleasure and comfort of the man and also the woman in the street.

Let us see of what the dirt of the street consists. A good deal comes from the wear and tear of macadamised roads, less from granite and wood pavements, least from asphalt. In some roads, particularly when there are tram lines, and on smooth pavements, there is a considerable amount of sand that has been used to prevent slipperiness. All these materials are harmless or of small account compared with the great bulk, which is simply horse droppings, worked up by wheels into slush in wet weather and ground into dust in dry. In some streets of small traders and where costermongers congregate, there is a very serious addition of animal and vegetable refuse which would not exist if the law were properly enforced, or which can be and ought to be swept up by special arrangements.

I am disposed to think, from what one sees, that the London dog is getting either more numerous or dirtier in habits. The Local Authority which is responsible for cleansing the footways should pay special attention to this form of nuisance.

The slush, even in our best thoroughfares, except in the city, usually covers the roadway so that it is impossible to cross it without gathering up a material portion to be carried home, and either left upon the step or deposited on mats and carpets. The clothes are fouled either by the act of walking or by splashes from vehicles; this dirt is brushed off inside the house in the form of dry dust. The dust in the street, composed practically as I have said, is allowed to blow about in clouds that obscure the view, that are bitterly annoying to passengers, and that get into the houses at every means of access, chiefly by the window when it is open to admit the fresh air! I do not know what a bacteriologist would say as to its effect upon our stores of fresh and cooked food, but investigations comparatively rude may suffice. When shelves of slate and wood in the fishmongers' and butchers' shops were being replaced with marble, I thought that what was good for the food while in their custody would be good for it in mine. Accordingly, I had the larder fitted with white polished marble. The next thing I heard was that dirt was coming through the perforated zinc as it had never done before: it was plain enough to see on the marble, though not conspicuous on slate or wood, and we had to try and stop it with a fine gauze. I do not think many of us realise the amount of sweeping and dusting that falls to the lot of the female members of every London household compared with what they would find in the country, besides which country dirt is clean.

These domestic trials are nothing to people who have plenty of space and plenty of help. It is the poor who suffer from them most. A dirty street in a poor neighbourhood is an unbearable affliction to the households that exist in it; the street is the only playground a poor child can have. I have had to act professionally and officially on property so situate, and have noted the flights of stairs up and down which children are always running with the dirt of the street upon them. It is impossible for any woman to keep her rooms clean or her children tidy against such odds. I am convinced that a main cause of the dirty and ragged aspect of many in our streets is traceable to such surroundings. There are those in our population, not necessarily dishonest or ill-behaved, who contentedly go about the streets in the garb and uniform of the tramp. If the streets were clean these could not accumulate so much dirt, and would be ashamed to walk about or ride in public vehicles in such rags.

I will give a few examples of the treatment of the streets of Continental cities. If you say that London is far greater, so are the penny post and the London and North-Western Railway and universal providers far greater than the agencies of our humdrum ancestors. Economy resides with those who grasp details and deal with them in a wholesale manner. And they are often very ordinary-looking people.

In Paris the street dirt is to a great extent washed down into the sewers, but the streets are swept where necessary. I have gone to the lowest localities on the south side of the Seine, where at night it would be unsafe to enter some of the houses, and have seen a man carefully sweeping the street. In the northern suburbs, the abode of poverty and reputed anarchy, I asked a man why he was watering with the hose a street that looked perfectly clean. He replied that he was watering it to cool the air.

* A paper read by Mr. Thomas Blashill, F.R.I.B.A., at the sessional meeting of the Sanitary Institute, on the 13th inst.

In Vienna they wash the streets three times or at least twice per day according to their importance. Every shopkeeper must wash his footway twice per day, or he is fined.

In Berlin to be dirty is an offence. The scavengers are dressed in clean white slops and uniform caps with smart leggings on account of the water, not of the dirt. They are as clean and respectable as postmen or policemen. This speaks volumes. Compare the rough clothes and the dirty occupations of our own scavengers.

In Prague, punctually to the minute, I do not know how many times a day two men with hand-truck and hose come down the street and wash the surface, though it may appear to be clean. In that ancient city they go into every alley four times every day, pick up the garbage, and clean it with water and broom.

In the busiest parts of Brussels the housemaid comes out and washes the footway with a house flannel as she might wash a kitchen floor. The most sober description of the scenes in any old Dutch town on a Friday afternoon or a Saturday, when the whole female population turns out to wash the fronts of the houses as high as they can reach by throwing and squirting, sounds like caricature. This is going away from the street, but the clean street is a civilising influence; it provokes to cleanliness within the house and without, and in the outer man at least—to go no further.

There is a fine street in Budapest twice as wide as some of our noblest. On a brilliant day I saw a sight not to be seen in any of our towns. A young man in the dress of a warehouse clerk, but with uniform cap, carrying from point to point four feet of hose-pipe, was sending up into the air the most delicate spray, more like a thick haze, so as to just wet when it fell the whole surface for 100 ft. round. Pedestrians did not mind it, the sun made rainbows in it; he was not drenched, but might have just wiped his fingers and gone anywhere, or kept any company within the range of such as he seemed to be. In Budapest many working women go barefoot on the streets, looking singularly bright and clean. In a full tramcar I saw an English lady offer to share her narrow seat with one of these rather than see her stand. Politeness that speaks all languages is, nevertheless, discriminating. I am not sure that this would have happened in the City-road.

Thirty years ago the condition of the roadways in London both as to paving and cleansing was a matter of serious consideration. Wood had been tried unsuccessfully for the time; granite was practically the only material, but it was noisy and exceedingly dirty. The Poultry, with 17,000 vehicles per day, and all the busier streets had to be left untouched between morning and night. Then asphalt, which had been used in Paris for several years, was introduced. I visited professionally the principal mines on the Continent to report on the manufacture and use of the materials. When we got asphalted streets the dirt was more than ever conspicuous. Just then some genius suggested constant cleaning by boys whom he called "street orderlies." They took up the droppings before they were dispersed by the traffic and put them in large baskets. When these were full heaps were formed beside them; often the baskets were kicked over. I took some interest in the matter, and sketched the design from which was made the "street orderly bin" that is now used on nearly all our asphalt roadways for holding the droppings, and may be seen in the chief Continental cities; any one has always been free to make or to use it. In Glasgow they have hundreds of receptacles sunk in the pavement. Sometimes trucks or barrows are used, as in Holland, where the town streets are admirably kept.

I am convinced that for town thoroughfares this is the only satisfactory principle. If the droppings get ground into dust they blow about and befoul everything; then comes the water-cart and more sunshine, the road gets dry again, and the dust reappears. In wet weather the material soaks up the water so that a slush is formed many times the bulk and weight of the droppings, expensive to gather up and worthless when got. If the droppings are collected fresh they will form a valuable manure—they will not form dust; the principal use of the water-cart will be to cool the air, and the rain will flow away freely into the sewers. Some sweeping will be required, but the work will be lighter. The work of a scavenger should no longer be considered of a low class or even "unskilled"; it should be well paid, and made to attract respectable able-bodied men.

The horse-broom, where needed, should be used with discretion and kept in good order. Very often this machine leaves the surface in about the condition which it ought to present when the work is begun. These brooms may do the heaviest work, but they do not finish so well as hand labour.

The removal of snow is a process capable of improvement, but I had rather leave it in the hands of those who are responsible for dealing with it. All these practical persons say we ought to return to the old system of cleansing the footways by private residents. Do the public authorities offer enough pay for a very unpleasant and trying kind of work? When that has been tried and has failed, the matter may be fit for reconsideration.

I will only offer one suggestion as to the material for roadways. "Macadam" has its merits and its faults, but it is never carried out as the inventor intended. Stones that will pass through a two-inch ring and that are covered with dirt or hoggin do not form a macadam road. I never saw one of these rings in this country. An old road surveyor used to test the size by making the stone-breaker put the stone in his mouth, an unsatisfactory and probably illegal measure of capacity. On one of the splendid routes in France I once saw a man carefully putting every stone of a small heap through a ring that seemed to be about 1½ in.—that is macadam. I am reminded by a paragraph in the *Times* of a scheme that has often seemed to me feasible. At the City of Hamilton, in Ontario, they have, after long experiment, adopted a macadam of limestone saturated with boiling tar. I should think that if broken granite of the size I have mentioned were mixed dry with boiling pitch, as is done with large gravel, and laid on a firm bed, then sprinkled with fine chippings and lightly rolled, a good hard roadway would be obtained.

Having expressed, as I do, a strong and unhesitating opinion that the dirt in our streets, apart from odious comparisons, has increased, is increasing, and ought to be diminished, I must venture one or two suggestions upon questions of practicability and cost.

When next I go to an old village, where in my youth the pillion survived on which my grandmother rode to escape the jolting of a wheeled vehicle over the rough highway; where, in my own recollection, every woman walked to church in her pattens; I shall go over the same highway, whether wet or dry, whether by day or by night, without obliterating on my boots the condemnatory evidence that, some five hours previously, I had picked my way across an important London street. This reform has been the work of pottering surveyors of highways and aboriginal road-menders; and shall the engineers of our twenty-eight metropolitan boroughs be restrained from the pursuit of similar ends?

Upon the question of expense I will quote the hateful and hostile evidence of my half-yearly parish rate, which shows that while I pay 7d. in the £ for schooling, with whatever there may be to show for it, the total cost of paving, watering, and cleansing is only 5d. And I ask whether we should really be brought to ruin by lavishing an additional 1d., or even a much begrudged 2d., on making usable and tolerable—and, at any rate, visible—the pavement that is supposed to be of gold.

ARCHITECTURAL SOCIETIES.

SHEFFIELD SOCIETY OF ARCHITECTS AND SURVEYORS.—A meeting of the Sheffield Society of Architects and Surveyors was held in the School of Art, Arundel-street, on the 14th inst. The President, Mr. Joseph Smith, was in the chair. The winners of prizes in the competition promoted by the Society for measured drawings of old buildings in the neighbourhood of Sheffield were announced. Mr. H. W. Inott won the Society's prize of three guineas and the President's prize of five guineas; Mr. J. Miller the second prize of two guineas, and Mr. E. R. Bower's drawing was highly commended. The drawings will be displayed in the Montgomery Hall at an early date. It was unanimously decided to forward the following address to his Majesty in the name of the Society:—"We, the President and members of the Sheffield Society of Architects and Surveyors, dutifully approach your Majesty to express our heartfelt sorrow at the lamented death of her Most Gracious Majesty Queen Victoria, whose pure life and noble character throughout the longest reign in English history have rightly endeared her name and enshrined her memory for evermore in the hearts of the millions of her subjects. We gladly testify here to her enlightened patronage during that long reign of the arts and sciences, notably to that of the ancient art of architecture, for which she has justly earned our lasting gratitude. We humbly tender our fullest assurance of loyalty and devotion to your Majesty, whom may God safeguard and guide long to reign over us."—Mr. H. H. Statham afterwards gave a lecture on "Our Cathedral Fronts: a Comparative Criticism," which is printed on another page. A vote of thanks was accorded to the lecturer, on the motion of Mr. Gibbs, seconded by Mr. Withers, and supported by Mr. Wigfull, Mr. H. L. Paterson, Mr. T. H. Waterhouse, Mr. Fenton, and the President.

BRISTOL SOCIETY OF ARCHITECTS.—The ordinary monthly meeting was held at the Fine Arts Academy on the 11th inst., Mr. F. W. Wills in the chair. Before the business of the meeting the President alluded in feeling terms to the death of Queen Victoria, who, as patron of the Royal Institute of Architects and the donor of an annual gold medal for the promotion of architecture, was directly connected with the profession. Quite apart from this personal side, the President dwelt upon the great loss the nation had sustained, and which has been so universally felt and acknowledged. After the routine business a paper was read on "Church Restoration" by Mr. C. H. Samson, F.R.I.B.A., of Taunton. The paper, which was the outcome of many years' experience as a diocesan surveyor, dealt very fully with the practical work of church restoration as applied to the fine old village churches to be found in West Somerset. The lecturer strongly advocated the preservation of all old work, and insisted that any necessary new work should be simple in character and of the very best materials. A collection of drawings of churches was exhibited. Upon the motion of Mr. Joseph Wood, seconded by Mr. Cyril Thompson, a hearty vote of thanks was accorded Mr. Samson.

EDINBURGH ARCHITECTURAL ASSOCIATION.—This Association visited, on the 12th inst., the City Observatory, Calton Hill. The party numbered between twenty and thirty, and they were conducted over the buildings by Mr. William Peck and his assistant, Mr. Ritchie. At the outset, Mr. Peck gave a short history of the Observatory buildings, the original design of which was by Playfair. The various transit and other instruments for determining time, instruments for measuring angular distances, equitorial instruments, and reflecting and refracting telescopes were described and their uses explained to the party, special attention being directed to the constitution and working of the domes.

DUNDEE INSTITUTE OF ARCHITECTURE.—A meeting of the student section of the Dundee Institute of Architecture was held on the 9th inst. in the Technical Institute, Mr. P. H. Thoms, President, in the chair, when a lecture was delivered by Mr. J. Donald Mills, architect, on "Some Staffordshire Buildings." Mr. Mills commenced by describing some characteristics of the natural features of the county. Part of the county contains some exceedingly picturesque scenery, and is altogether outside of the "Black Country." After a short *résumé* of the history and archæology of the county, Mr. Mills proceeded to show a selection of lantern slides, drawings, and sketches illustrating some of the beautiful and interesting old stone manor houses, village churches, and other buildings, including the following examples, which were described:—Lichfield Cathedral, Ashbourne Church, Wootton House, and Moreton Old Hall. He also crossed the border into Derbyshire, so as to include Haddon Hall. Reference was also made to some modern buildings of note, such as All Saints' Church, Leek, the work of Mr. Norman Shaw, R.A., and the Monastery of St. Bernard, by Pugin.

THE ROYAL INSTITUTE OF THE ARCHITECTS OF IRELAND.—A general meeting of the members of the Royal Institute of the Architects of Ireland was held recently at the Institute rooms, 20, Lincoln-place. In the absence of the President, the chair was taken by Mr

J. Rawson Carroll, F.R.I.B.A. The following resolution was adopted by the meeting :—"We, the members of the Royal Institute of the Architects of Ireland, in general meeting assembled, desire to express our profound sorrow at the death of our revered and honoured Sovereign and Patroness her Majesty Queen Victoria, and to convey with loyal and dutiful respect to his Majesty King Edward VII., the Queen Consort, and the other members of the Royal Family, our deepest sympathy in their great bereavement." The President and hon. secretary were requested to take the necessary steps to have the foregoing resolution brought under the notice of the King.

Illustrations.

STUDY OF AN INDIAN HOUSE.

THIS is a reproduction in monochrome of one of the coloured drawings which gained for their author, Mr. Hervey Rutherford, the Owen Jones Studentship of this year.

It shows part of the façades of two dwelling-houses built of teak wood, carved and painted. They are seventeenth-century work from Ahmedabad, Guzerat.

FIREPLACE, HOTEL-DE-VILLE, AUDENARDE.

THIS illustration is from the numerous collection of sketches which gained for their author, Mr. H. W. Cotman, the Institute's Pugin Studentship this year.

In regard to the subject itself, Mr. Cotman writes :—

"This late Gothic fireplace was executed by Paul van Schelden during the regency of Margaret of Austria, and it is interesting to compare it with his well-known doorway screen which forms the entrance to the Council Chamber, in which this chimney-piece is.

Its date is 1529, two years earlier than that of the Renaissance portal. It will be noticed that the Austrian eagle of the Empire forms the device of the centre shield in the lower part, with the collar of the Golden Fleece and the Imperial crown. The eagle occurs again in the left-hand panel of the upper part. The shields to the left and right bear the lions rampant of the Court of Flanders and Dukes of Burgundy. The blazoning of these shields is kept bright by fresh paint.

The figures under the canopies to the left and right probably represent Justice and Truth, with Our Lady under the centre one, bearing in her arms the Church of Notre Dame de Pamele of this town with its octagonal centre tower.

The hexagonal canopies are similar in design to those on the exterior. The chimney-piece, which is similar to the one below in the Salle des Pas Perdus, is in excellent preservation. The fireback and dogs are somewhat later in date, as the inscription shows."

DESIGN FOR ENTRANCE GATEWAY TO A PUBLIC PARK.

THIS design, by Mr. Walter Fairbairn, of Edinburgh, is the one to which the Council of the Institute this year awarded the Tite Prize, instituted for the encouragement of the study of Italian Renaissance architecture.

We have already expressed our opinion on this and most of the other designs submitted, in an article on the Students' designs in our issue of January 19.

The author writes :—"In preparing my design I was undecided at first whether to have one large gateway or a double system with a separate entrance and exit. I decided on the former as being more suitable for a large and imposing treatment (although more difficult to keep in scale), and also fulfilling the traditional idea of a gateway better than the latter."

ROYAL MASONIC INSTITUTION, WOOD GREEN.—We read that the Governors of the Royal Masonic Institution for Boys are about to vacate their premises at Wood Green which have been acquired for purposes of the Home and Colonial Training College, in Gray's Inn-road. New schools for the Royal Masonic Institution are being erected at Bushey, Hertfordshire

THE ARCHITECTURAL ASSOCIATION :

THE BASIS OF GOTHIC ARCHITECTURE.

AN ordinary fortnightly meeting of this Association was held on Friday evening last week in the Meeting-room of the Royal Institute of British Architects, No. 9, Conduit-street, Regent-street, W., the President, Mr. W. H. Seth Smith, occupying the chair.

The minutes of the last meeting having been read and confirmed, and Mr. M. N. Castello having been elected a member,

The Chairman announced that a special general meeting would be held on Friday, 8th prox., when the Committee's scheme for the establishment of day classes in connexion with the Association would be submitted to the members. The scheme had been drawn up by a strong education committee, and had been adopted by the general committee with a few amendments ; but in accordance with the by-laws it is necessary to bring it before the general body of members before it can finally pass.

The Chairman then called upon Mr. E. S. Prior to read a paper on "The Basis of Gothic Architecture," of which the following is an abstract :—

Mr. Prior said that so recently as last November they had heard such an able paper by Mr. F. C. Bond on English and French cathedrals,* accompanied by many illustrations of the beauties of Gothic art, that he felt he ought almost to apologise for again bringing the subject before them : but there was this advantage in following Mr. Bond : that he could ask them to recall the beautiful lantern illustrations they had seen on that occasion. No doubt an inquiry into the basis of this beauty would incline to that psychological side of art which many people considered a region of barren speculation, where one wandered in the quest of conjecture. For was there such a thing as beauty in Gothic art, or in anything else? Tolstoi, in his recent work on art, said that beauty in art was a phantasm, but he (the speaker) would beg that question. What if beauty had for ever hid her face? Still the love of beauty must be admitted, and it existed as a force to be counted on, for from this love of beauty came the emotions which expressed themselves in creative work. Was it not human nature that we counted that beautiful which we loved?

That was as far as he intended to go into the region of speculation, and he would ask them to swallow no more metaphysics, but turn to the practical question : Who really were the creators of Gothic beauty —whose love of beauty made the beauty of Gothic art? It would be conceded, he trusted, that the Gothic creation was one of a very marked kind, having a distinct geographical range which was sufficiently remarkable apart from the art and science of it all. To the separateness of the Gothic style (which was equally astonishing) we should be more alive were we not sated with the modern revivals of it. The life of the Middle Ages was all coloured and transfigured by the glory of a distinct Gothic creation ; the mediæval city was distinct of its kind among the cities of all ages —not only by its laws and government, its customs and morals, but still more by its saturation with an active art that affected everything. It was the exact reverse of the hole-and-corner successes of individual art faculties. In mediæval life every art and every craft was to be seen under a dominant emotion, and it was this aspect of a specific energy making everything beautiful—in a word, the passion of it all—that was, to his mind, the most significant fact of Gothic art. Anyway, that art had aroused almost endless discussions and given rise to many theories, some of which he proposed to discuss in order to see how far they accounted for the wonder of this Gothic style ; and he would divide them according as they alleged causes affecting the whole body of the community, or as they indicated individuals as being the creators of art.

For example, the religious theory might assert generally that art was the handmaid of religion ; or, on the other hand, that the exaltation of religious sentiment in the artist made him a gifted designer. These two sides were capable of being separately weighed, and we were entitled to ask, when the beauty of any work was laid at the door of faith, whether the general condition of the community or the personal faith of the artist was brought into court. He proposed to deal in some degree with the personality of the mediæval artist, and would endeavour to show that this personality constantly eludes us, so that it must have counted for little and could practically be disregarded. Even to-day, with our practice of individual art production, it was difficult to maintain that men of noble mind, or of religious faith, or of any particular training, by reason of such endowments, achieved great art ; and in mediæval records there was no evidence to suggest that noble aspirations led to anything like our modern individualism.

Mr. Prior then proceeded to discuss the three following theories of the origin of Gothic art, viz., the Ecclesiastic, the Freemason, and the Architect, though he said he did not suggest that such classifications were exhaustive. That which he nicknamed the Ecclesiastic theory would derive the growth of mediæval art from the personal faith and character of the religious orders—of the monks, canons, and friars who were in the heyday of their influence and importance. Was it possible to associate in a personal way the members of a religious order with the designing of Gothic art? Most certainly that art arose in the building and decoration of houses and churches for monks, canons, and friars, and the history of Gothic art was mostly written in abbeys and cathedrals. The supposition of the Ecclesiastic theory was that in these ecclesiastics we had the personal creators of the Gothic style—this idea during the last fifty years appearing in the views of many writers, including at one time Street, who thought it "sacrilegious" to question it —for we had only to revive a similar state of society as existed in the Middle Ages to achieve a like distinction for our architecture to-day. This, of course, was the special pleading of a religious revival, and outside such propaganda, what was there in the records to connect great ecclesiastics with building? It could not, with any show of probability, he contended that fierce soldiers and busy politicians, like Bishops Roger, of Salisbury, and Puisey, of Durham, could have been the personal designers of the great churches. Everything tended to prove that the bishops hired their builders and masons to carry out their building work : there was no evidence to show that what we call the design of a building lay with the authority that ordered it. He believed that no English document remained to tell us that ecclesiastical authority set out the ground plan even of its churches. It was probable that it did so by word of mouth, and perhaps in draught, though there was nothing to indicate this last. There was no doubt that the cleric dictated the general ideas of what the building was to be, but that was not what we mean by personal design nowadays. In the origin of the great Gothic buildings the ground plan was very much prescribed by tradition, and what followed was the work of accomplished masons, well exercised in their craft. That was radically different from the system of individual designing. The religious control so far was only the dictation of what was to be built, although it entitled certain bishops to be called the builders of their churches. Mr. Wyatt Papworth had so thoroughly sifted all the mediæval material at hand as to the appointment of ecclesiastics for the management of building, that it was only necessary to read his paper in the 1887 "Transactions" of the Royal Institute of British Architects to feel sure that no designing function as an artist could be indicated in posts which were held by poets like Chaucer as well as by bishops like the Bishop of Salisbury. Still there were certain references to the personal intervention of ecclesiastics in regard to building which should not be passed over, and they were found in our earliest records. It is significant that the earliest missionaries to our ancestors in the seventh century introduced workmen into this country to build in stone in the Roman manner. There were indications that St. Augustine brought such workmen from the Continent ; and Wilfrid of York, sixty years later, may have got them to build at Hexham and Ripon. Thereafter the reputed saintliness of building craft remained for some five hundred years in mediæval tradition, as can be shown by many entries in the records. In the foundations of mediæval society, faith and civilisation were walking hand in hand.

But in the making of Gothic the personal sentiment of religious life was not discoverable and no more could the personal skilfulness of

* See our issue for November 3 last.

the masonic guild be found therein. This latter theory had been revived by an Italian writer, Merzario, whose researches have been introduced to us in a recent work by "Leader Scott." It was, however, Thomas Hope who, in 1835, had started the idea, and in 1852 Macaulay told Mrs. Beecher Stowe that all the cathedrals of Europe arose nearly simultaneously, and were built by a body of freemasons.

Mr. Prior, having referred in some detail to "Leader Scott's" book, "Cathedral Builders," said that if any one should be charmed by the symbolist interpretation of ancient documents and inscriptions by which that work made out the Comacine Guild, he would ask them to read chapter xxi. of Thomas Hope's Historical Essay, and then turn to the actual records in order to test the accuracy of this theory of the universal domination of the guild. For example. Geware's account of the rebuilding of Canterbury choir indicated no dominant authority of freemasons, but only that the monks appointed and organised the workmen. They were hired and dismissed, as the case required. As Street, from his examination of the Spanish archives, declared against the freemason theory, so Wyatt Papworth says that the earliest records of the local guilds of masons showed that they were not under any central masonic organisation. There was little proof either for Merzario's theory that Italian masons had a guild with a dominant authority during the thirteenth and fourteenth centuries. Was there, then, no brotherhood of masonry, no mystery of craft? The craft of masons had, of course, its methods and secrets; and there was this interesting point with regard to mediæval masons, viz., that it was by reason of their stone carving that they established themselves as the chief experts of Gothic building. Stone constituted the bone and flesh of Gothic building. Christianity introduced the ambition for chiselled stone, and it was the stone-dressing workman who came to be the ruler over the other workmen, and the knowledge of setting out necessary for his craft made him the acknowledged expert for the setting out of the building. So the master mason's craft marked him out as the ruler of Gothic architecture. His idea of proportion, though based on the easiest manipulation of compass and square, had a sacredness on which he could establish the mystery of freemasonry. But such could hardly be reckoned as the essence of Gothic work, and this little geometrical knowledge was not what we mean by personal quality in the work of individual architects.

With the Renaissance in Italy appeared the scholar architect, but the Architect theory would antedate this event some five or six hundred years, and would make the beauty of Gothic buildings depend on the architect in the sense that it does to-day. No doubt the word might be used generally for any human agent of architecture; but what was meant now by the title was a specialist architect who designed buildings and had them carried out by builders. It could be said of the Middle Ages, that we do not know where the architect ended and the builder began. To-day the functions of architect and builder were separated by definitions which allowed of no confusion. Both terms in this sense were of comparatively modern origin; the term "builder" came into use early in the nineteenth century, and that of "architect" in England in the last part of Elizabeth's reign, and it was clear that any transference to ages long antecedent of the ideas which these terms had been specialised to convey must create confusion. All this was obvious, and yet it was forgotten—not only by the vulgar and unlearned, but by scholars, and the idea of the personal individual architect governed most views on Gothic architecture. Even with Street, in his "Architecture in Spain," all through his sympathetic description of mediæval cathedrals, it could be seen how he thought that the architecture he was describing came into existence as the result of personal genius like his own, and he regarded the excellences and peculiarities of the churches he described as essentially the result of design, and not of growth, and as if a set of drawings signed by an architect was responsible for them. It was wonderful that Street should speak of the mediæval *magistri* as though they were architects like himself, when his own complete analysis of the documents shows how complete was the difference.

If, then, there was no class of "designers" in mediæval times, was there no drawing of ancient building? He had already referred to the plan-making which existed in the great creative period of Gothic art, and if any one called that plan-drawing "designing," he was welcome to that opinion. In England we did not find our mediæval buildings copied one from another in the large matters of design, though in the Île de France, as Mr. Bond had shown, the church buildings were copied a great deal. Now the point of his inquiry had been as to whether the capacity of the personally-designing architect could be accepted as lying at the root of Gothic excellences. Such transcripts of existing work by master masons went straight for his point, since they were carried from place to place for the purposes of reproduction, and the decadence of such copied work is, as Mr. Bond pointed out, very evident. There was clearly no room for the architect as we know him—the trained imaginer who planned the shape, construction, and detail, so that the workmen following him could carry it out. Plan, construction, and beauty in mediæval building were not matters of any one's fancy to be put this way or that as the modern architect wished. Such things were not at the mercy of the designer-architect; the plan was set by an authority which brooked no deviations. The construction of buildings in each period of the Gothic style was carried on by practical masons, who were not turned aside by considerations of design.

The personality of the one-architect theory must therefore be dismissed, and the broad basis of Gothic architecture must be considered to be due to environment and habit. It was because it was due to cosmic forces that Gothic art seemed to be so transcendant. But Gothic art did not stand alone in that position. Separated by centuries, there were, besides the Gothic, other eras in which man had shown himself an inspired creator; and looking at the matter in this way we could see the ebb and flow of cosmic art—the creation of distinct styles, such as Egyptian, Byzantine, Greek, Gothic, &c. He knew, of course, that the coming and going of art was by many correlated with the phases of religious faith. It was held that at the times of great art there was great life, when the whole vigour of man's nature spoke with a full voice. But he could not see as far as that; the phases of great creative expressions of art seemed independent of great religious fervour or great nobility of life. Great art and great life had on occasion coincided, as had bad art and bad life, but such coincidences were marred by others of very doubtful interpretation.

He had shown that the distinction of producing Gothic art could not be assigned to the personality of one particular class—ecclesiastic, freemason, or architect. Still, it was clear that building work could not continue as the common habit of the community, and it became delegated to a class of craftsmen, and there arose a building class, although for some time after the monks continued to do their own building. The expression "architect" once meant the whole community; then the whole body of craftsmen; and now it was parsimoniously applied to the single designer who had monopolised the name. Gothic art was great because it was not individual but cosmic.

The Chairman, in inviting discussion, said they had had a great intellectual, archæological, and artistic treat. Mr. Prior's work was full of freshness, and raised points in their minds which were of great interest and importance to them as a profession. Mr. Prior's views were startling sometimes, but they were always worthy of the very closest investigation.

Mr. G. B. Carvill, in proposing a vote of thanks to Mr. Prior for his eloquent address, said he could not altogether agree with the theory of not having an individual architect. It seemed to him incredible that Lincoln Cathedral, for instance, should be produced from a ground plan by a body of craftsmen, and he thought that a drawing of some description must have been used. He could not see how a craftsman could set out a piece of masonry unless he had had something to go upon, and he thought that the *magistri* who had been referred to must have been something of an architectural ghost, and knew a little more about what was going to be put up than what we were given to understand.

Mr. G. H. Fellowes Prynne, in seconding the vote of thanks, said that anyone who had heard the lecture that evening and who had read Mr. Prior's book would recognise the same warm enthusiasm for the subject he had in hand which made both his reading and writings so interesting to those who heard and read them. It was impossible to speak on such a paper with any positiveness and in any detail without having considered the paper previously, but, in a superficial way, he might say that the theories they had put before them must give them rather a shock. Of course, the discussion as to the existence of these craftsmen and freemasons had been going on for some time. Undoubtedly guilds of craftsmen did exist, but he could not help feeling that what Coleridge said was true, viz., "that the architecture of our churches was simply the expression of religion." He could not help feeling that the religious life of the middle ages made itself felt in every single detail of the buildings that were erected, and he could not conceive that Salisbury Cathedral, for instance, did not have one mind starting the idea of its plan, and seeing to the whole scheme—not perhaps as the professional architect saw to it now, but nevertheless guided throughout by one master mind. That building in particular showed very strongly the mind of one man marked throughout. He felt inclined to say "What's in a name?" It did not matter if it was the architect to-day and the *magistri* in the mediæval days. One felt that we were growing gradually from what had existed, but we could not believe that such an absolutely different system existed in mediæval times. Of course the professional idea did not exist in the middle ages, but the same system, to an extent, of a master mind designing and controlling the erection of a building must have existed then, and indeed since building itself existed. He quite felt that Mr. Prior had given sufficient proof of the influence the monks had had on ecclesiastical art; they made it part of their religious life to work in churches. Take a church like Woodstock—a little church where one saw in the carving almost the expression of the monks when they did the capitals of that building—so real was their interest and pleasure in the work they were doing. That sort of nobly religious and sympathetic feeling was certainly not brought about only by outside masons brought from abroad, though there was no doubt the monks were often helped by them, but the work was taken up by the ecclesiastics of the time, and made part of their religious community life. He could not help thinking that the strong distinction Mr. Prior had drawn between architect and workmen of to-day, would not apply very much to the past. The architect undoubtedly was much more of a workman, and no doubt put his hand to the chisel; still, he was the man who conceived and drew the great scheme. He (the speaker) was glad that the subject of Gothic architecture was not being neglected by the Association. The idea that Gothic architecture was dead had got about recently. In one sense, perhaps, that was true, but Gothic architecture could never be dead. It had much more vitality and life in it than to be killed by the fads and fancies of the modern day. He expressed the hope that the study of Gothic architecture would not be neglected by students, and that the great spirit which had brought about such exquisite art in our country—which we could almost call national art—would not be neglected. He spoke as an enthusiastic lover of Gothic work.

Mr. H. H. Statham said he was rather in opposition to the views of the lecturer, to whose paper he had listened nevertheless with great pleasure, as the work of a cultivated and thoughtful mind. But he could not understand the anxiety there seemed to be amongst some people in the present day to make out that there was nothing in the middle ages analagous to the architect as we thought of him. It was amusing to him (the speaker in another way, for only the previous evening, in a paper on the west fronts of English cathedrals read at Sheffield, he came to the opposite conclusion to that which Mr. Prior had tried to establish. When Mr. Prior referred to what he called the tame repetition in the design of some of the French cathedrals, he (the speaker) agreed that there was far greater variety in the design of English cathedrals. But let them look less at mere documents and more at the internal evidence of buildings. He did not see why it should be assumed that the person whom we call "architect" in modern times did not exist in the middle ages because he was not known by that name, and he did not see how some buildings would have got their very remarkable individuality except from the imagination of one mind. He would suggest that the real difference between the

architect and the mason was something like the difference between the sculptor and carver: the sculptor must be able to carve with his own hands, but he also imagined the figure; whereas the carver only reproduced from some well-worn model. But was not an architect a man who thought in stone, and thought out his conceptions? and a mason the man who knew how to set that out and put the stones together? Mr. Prior had referred to two or three cases of people who were given certain advantages because they were good builders, not because they were good designers of buildings. Did Mr. Prior mean to tell them that Bishop Gundulph put on the apron and worked with the chisel on the stone? If not, what did he do? Did Gundulph go about and tell the others what to do? If so, how was that essentially different from making a drawing and giving directions on paper? which, after all, was only an easier way of showing the workmen what to do. Coming to illustrations of individual work, there was one instance which appeared to him almost conclusively to prove the exercise of the individual mind, and that was the remarkable case of the west fronts of Ely and Peterborough Cathedrals. In Ely we found a west front which was totally different from anything to be found in England; it was a screen front of an Italian type, with a centre door. There was evidence to show that at the time that was built the front of Peterborough was much less magnificent than what it is at the present day, and it was clear that the present front was commenced just at the time Ely was being built. When the people of Peterborough saw what was being done at Ely, they became dissatisfied with their own west front, and they introduced a new and magnificent design in front of the old—the design of the three magnificent arches which we now know. Could there be two such features so absolutely different as the front of Ely and the front of Peterborough, carried out within a generation of each other by people who could almost see one building from the other, unless there were an individual designer in each case? He did not see how such a result could be possible if those two buildings were produced merely by a number of masons. From whose head did the conception of those three grand arches at Peterborough come? for it must have come from the head of some one man; he may not have been called an architect, but he must have performed functions similar to those which the architect of to-day carried out. The mistaken idea seemed to be that because no such name as architect had been used, except once or twice, and then in a different sense, there then was no such person as an original thinker in mediæval building. As to the traditional treatment of mouldings and ornament, it was perfectly clear that there was a school for that kind of work, and one found the same kind of mouldings everywhere; but in regard to the west fronts of our cathedrals, there was great variety of conception and treatment. It was impossible to imagine that being so without admitting that one mind in each case conceived the idea and gave the instructions to carry it out.*

Mr. Francis Hooper said he had the pleasure, when studying in Yorkshire (which he regarded as the home of the most beautiful Gothic work), of meeting the late Rev. Mackenzie Walcott, who was studying in connexion with a book on the Cathedrals and Convents of the country. One may learn a great deal from a lay enthusiast, and the Canon seemed able to throw those he met back into the Middle Ages, so great was his grasp of, and intimacy with, the life of the monks; and he described many of the characteristics and habits of the Cistercians and Benedictines, explaining why the buildings they occupied differed in plan and arrangement. He (the speaker) believed he was right in stating that the Canon explained the methods of work and the tradition which was followed in those days as the migration of workmen collectively from one building to another. That any body of workmen could move and work without a responsible head seemed to be absolutely impossible, but with that head everything seemed simple; and whether he was called by the name of master of the work or by the Greek name of architect seemed to be of very little consequence. No doubt he was frequently in holy orders. If he commended himself to his patrons, he and his fellow-workers were invited to undertake work elsewhere, so taking traditions from one place to another, but always working under the master mind. All would recollect the extremely interesting speech made by the late Bishop of London on the occasion of their annual dinner—how he explained his theory in regard to the increasing magnificence and the progress of church building in this and other countries, and in an interesting way how he showed that the progress of the art of architecture was largely due to the rivalry of the religious houses. Gothic work was almost entirely confined to church work, and implied self-denial, which, in our commercial age, scarcely exists. Men in those days delighted to devote their whole lives to their work, believing in principles which are foreign to many people of the twentieth century. He (the speaker) believed that the late Mr. Pearson used to send from one building to another the same set of workmen of a given employer who worked for him thus again and again. Such men became intimate with each other, and knew what the architect wanted, and he knew what they could do. He believed the late Mr. Sedding did much the same among his Cornish churches. In restoring those churches he often went to the same builder, and the same workmen were employed again and again. This seemed a modern parallel of what was done in the Middle Ages under different conditions, and appeared a possible way out of present-day difficulties. There were many difficulties in producing good architecture to-day, but, fortunately, there were many men who could do uncommonly good work in spite of all. The tap-root of the difficulties was commercialism, work being generally given to the man who tendered lowest.

The Chairman, in putting the vote of thanks to the meeting, said that the paper was a delight and a pleasure, and not for that evening alone, but would be so during excursions and holidays, enabling them thoroughly to enjoy the work they devoted themselves to. There was an old print in the British Museum of the supposed architect of St. Albans showing his design to the King. What did Mr. Prior think about that? It was rather discouraging to hear Mr. Prior's remarks about sketching: if they had to abandon sketching, they would do so with very great sorrow. In Mr. Prior's view our professional system must be radically changed if we were to have a national architecture again. How was it to be changed? The modern architect was a development, and he appeared to be still developing, and it would seem to be impossible to change his present constitution—certainly not suddenly. One or two lessons might be learnt from Mr. Prior's paper, and they must be perfectly clear to every one. One was that architects must be content to leave more to the craftsman, both as to the work and as to the design, though it appeared to him (the speaker) that the architect must keep a general control so as to get harmony throughout his building. Then we must have what Mr. Prior beautifully described as the passion for building. They should get thoroughly saturated with the love of architecture, with the beauty of it—as an Association or Guild—in order to bring about its promotion. It seemed to him that architects should do everything in their power to stimulate public opinion as to the importance of beauty in architecture, and he was quite sure that nothing like the care and thought and effort had been devoted to that particular point which might have been. It was true that something was just beginning to be done, and, in his opinion, the University Extension Lectures were doing more than anything else at the present time to help on a national appreciation of architecture. He thought that Mr. Hooper's point as to the practice of the late Mr. Pearson and the late Mr. Sedding in regard to the employment of the same builder was a very good one. If that practice was more extensively followed there would be a greater chance of getting a sort of continuity of work and developing ideas which were good.

The vote of thanks having been heartily agreed to,

Mr. Prior, in reply, said that he quite agreed with Mr. Carvill that it was an astonishing thing that Lincoln Cathedral should have come into existence without being designed on paper, as we design nowadays—that was, it was strange to those who had been brought up with the idea that buildings must be set up in that way. From that standpoint it seemed absolutely incredible that a building like Lincoln should come into existence by mason-craft instead of by architect-craft. But he thought it would appear less extraordinary if they considered the circumstances a little. Lincoln remained almost the sole example in that part of England of the work of the last part of the twelfth century, for the destruction of Lincolnshire abbeys (which were mostly founded in the twelfth century) had been almost complete, so that cathedral stood almost alone, as if it had come ready-made out of somebody's mind. But really there can be little doubt that the style of Lincoln Cathedral had been prepared for in other works carried out by masons. There had been an ancestry of working masons, who carried out the work of Lincoln Cathedral not so much as an entirely new thing as it appeared to us. Mr. Prynne made some remarks which no doubt he thought were in opposition to his (the speaker's) views, but, as a matter of fact, he was very much in accord with those views. Mr. Prynne spoke of the pleasure it must have been to the monks who put their heads together and carried out certain pieces of sculpture. He was quite of that opinion, too, and he thought that the first work of the Cistercians, with their working communities, was the building of their churches; but at that time building was a common thing; it was part of the work of the whole community, very much as building is in the backwoods of America to-day—everybody coming to help when a building is put up. He did not say that that was so all through the Middle Ages; it was evidently so only at the beginning, when society was on quite a different footing from what it was now. There were not the grades that we had now, and it was no more degrading to a monk or a bishop to handle a trowel than it was to-day for the farmer in the backwoods to put up his log hut. The idea that the work must have been carried out by inferiors in the times he spoke of was not justified at all by the evidence. [Mr. Statham: Did Bishop Gundulph work on his own building with his own hands?] Certainly, but not all day. When the chronicler referred to him as working with his own hands he meant that it was saintly to build. Mr. Prynne also referred to the difficulty of understanding how Salisbury Cathedral came to be built except from the designs of a personal designer. Well, we knew very much how Salisbury Cathedral came into existence, how the Bishop decreed it, how the administrator had charge of it, and how the mason ruled there for twenty years; and therefore Salisbury did afford evidence of one man's mind in this foreman of masons, and Salisbury was the most monotonous of English cathedrals he knew of. But did that singleness of mind make up what we call an architect? It did not seem so to him, and he regarded it as an accident in the making of the cathedral, which made it duller than it otherwise would have been. Mr. Prynne also suggested what was very far from his (the speaker's) mind, that we English introduced masons from abroad to do our buildings. Except in very early ages—before, in fact, building had taken any hold in England—this was not the fact. The introduction of stone building must have come from somewhere, and he thought the evidence was strong that it came in from abroad after the seventh century, when the missionary bishops first brought Christianity to England. That was a different thing, however, from saying that our masons were continually being brought from abroad, for the cases in which that had occurred were so few that one might disregard them. Nowadays we thought that plan and design must go together; so we had difficulty in seeing how, in the Middle Ages, plan and mason craft were not one thing, but two. Mr. Statham had a very distinct way of looking upon the art of architecture, and he clearly thought that it was by a sort of intellectual process that the elements of art were brought into a certain form and produced a certain result. It might be an incapacity on his (the speaker's) mind in understanding what intellect is, but he did not agree with that view at all. Art ends when intellect begins, and he had not the least doubt in regard to the difference between the west front of Ely and the west front of Peterborough, that there was some intellectual mind at work which thought that those three great arches would look very fine at Peterborough, but he did not think this process of intellectual conception made the art

* These remarks are nearly a repetition of those in Mr. Statham's paper read at Sheffield the evening before, and also printed in this issue; but as Cuddie Headrigg said, "A gude tale 's nane the waur o' bein' twice tauld, and a body has aye the better chance of understandin' it!"

of Peterbrough. It lay in the whole shape—in the feeling, expression, sculpture, the whole of the building, and not in anything which could be called a designing process, such as an architect now is perfectly capable of doing. He believed there was in the case of Peterborough someone who had to determine that sort of thing up to a certain point, for there were contracts which showed how authority settled how many feet broad or high a building was to be, and no doubt there was some one at Peterborough who decided there must be three arches. [Mr. Statham: That is all I want.] Yes, but the points of view were different. In regard to what McKenzie Walcott had said about companies of masons going from one church to another, it was almost certain, from the records which remain, that that was the case. But he had not found the least evidence that these masons went from place to place under the headship of a master mason whose designs they carried out. [Mr. Hooper: Canon Walcott did not mean that all work was done so; no doubt local men were employed in some cases.] The masons might have gone to and from abbeys in Yorkshire, for instance, but he did not think there was any evidence to show that they migrated from Yorkshire to Devon, for there was such a difference in the different crafts in the different parts of the country that it did not seem possible that masons could have travelled systematically as a body, except perhaps in their own county. In reply to the chairman, he had to confess that he had not seen the drawing of the architect of St. Albans handing his design to the king, but he might mention that Viollet-le-Duc, in the frontispiece of his book, showed a mediæval architect dictating his plan to the monk, but no document and record remained to support this relative position. The evidence was the other way—that the monastic authorities—the bishops, canons, and monks—held a tight hand on their masons, and there was no dictating by the mason to the authority; he had to do what he was ordered. Wilars de Honnecourt was well known by his book of drawings—his sketch-book as it was called. He believed there were eighty-three of these drawings, and nearly two-thirds of them were drawings of the figure, nearly half of the remainder being drawings of "machines" for various purposes. One was a drawing of a lectern on which he wrote, "This is the best sort I make." Then there were drawings which were copies of well-known places, chiefly bits of Rheims. In all the drawings there was only one thing which had not been copied, and that was a plan, as to which he wrote, "I designed this"—designed, invented, or whatever they liked to call it—"with Peter de Corbie in dispute with him." Evidently the sketch-book was not the sort of thing we were accustomed to nowadays, and it was really no proof that the masons made drawings from which buildings were erected. The whole point of his inquiry was whether in the Middle Ages there was *a class of* designing architects; there may have been people who supplied ideas for building as architects do now, but the real architects were the masons who worked with their hands and carried out what they thought. No doubt, as Mr. Statham had pointed out, there was a difference between the sculptor and the carver, and so in regard to the erection of buildings some master mind controlled. But these were not like architects of the present day, because they lived on the work and worked at it. To-day architects were a class apart from the work; they did not live in it; they had another faculty specialised for them, viz., the faculty of designing apart from the work. Architects of to-day took up a little bit of the work of the mediæval builder and magnified and multiplied it, while the greater work of the mason of those days—that was left undone. As to whether the present system could be changed, he had no thought of suggesting anything of the kind. As the chairman said, the architect had grown up by stages, and he would continue to grow as the times made him. He thought it utterly impossible to go back to the way of the mediæval builders. Whether we produced architecture by our methods, however, was another matter. As he had said before, he thought architecture would begin where the architect ended.

The Chairman announced that the next ordinary meeting would be held on March 1, when a paper on the Paris Exhibition will be read by Mr. Wonnacott.

The meeting then terminated.

COMPETITIONS.

THE NEW TOWN HALL, AYR.—On the 11th inst., at a private meeting of the Town Council held after the ordinary meeting, a report by Mr. John J. Burnet, A.R.S.A., Glasgow, on the designs submitted in competition for the restoration of Ayr Town Hall was read. Mr. Burnet reported that the arrangements, both of the court-house and police department and of the hall in No. 1 design, appeared to him so good that he had no hesitation in placing it first. The Council unanimously adopted the recommendation of the assessor, and resolved to proceed with the erection of the hall. The successful design is that of Mr. J. Kennedy Hunter, architect, Ayr, and the cost of carrying it out will, according to the estimate of the measurers, Messrs. Douglas, Hunter, & Whitson, Glasgow, amount to 9,515*l.* The hall, with its principal accessories, will be comprised within the four walls of the original building, and its total seating accommodation will be 1,078. In connexion with the police office a new court-room is to be provided, and there are also to be matron's room, production room, chief constable's room, superintendent's room, and muster room.

BRANCH FREE LIBRARY, NINEVEH-ROAD, LEEDS.—Mr. Leonard Stokes (of London), the assessor appointed by the Corporation of Leeds, has awarded Mr. William Bakewell, F.R.I.B.A., architect, the first premium in this competition.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday afternoon in the County Hall, Spring Gardens, Alderman Dickinson, Chairman, presiding.

Loans.—On the recommendation of the Finance Committee it was agreed to lend the Battersea Borough Council 3,165*l.* for street improvements; the Bermondsey Borough Council 21,140*l.* for the erection of stables, workshops, stores, &c.; the Lewisham Borough Council 15,500*l.* for the enlargement of the Town Hall; the Woolwich Borough Council 2,340*l.* for infectious diseases shelter and post-mortem rooms; the Hammersmith Guardians 10,600*l.* for the purchase of land and premises as a site for relief offices; and the Metropolitan Asylums Board 100,000*l.* for the erection of a hospital.

Historic Buildings.—On the recommendation of the General Purposes Committee it was resolved to appoint a new standing committee, for the purpose of considering and reporting upon questions relating to historic buildings in London, and of dealing with the preservation and publication of historical records of the Council, the administration of the library, and other cognate matters.

Berlin Fire Brigade Exhibition.—The same Committee, having further considered the letter from the German Ambassador, with a prospectus of an International Exhibition of appliances and arrangements for protection against fire, which is to be held in Berlin in June, recommended that the Home Secretary be informed that the Council regretted they could not see their way to take part in the International Fire Exhibition.

Mr. Campbell protested against the action of the Committee as being discourteous to the German Government, and moved that the wish of the German Government be complied with, and that the Committee be requested to carry out the necessary arrangements.

Colonel Legge, M.P., seconded the amendment, which was rejected and the Committee's recommendation agreed to.

Electric Tramways.—The Highways Committee recommended that the estimates for 145,000*l.* and 478,500*l.* submitted by the Finance Committee be approved; that the expenditure be authorised for the purposes of reconstruction for electric traction of the Council's tramways between (*a*) Westminster Bridge-road and Upper Tooting-road; (*b*) Kennington Park-road (at its junction with Kennington-road) and the terminus at Blackfriars-road; and (*c*) St. George's-circus and the terminus in Waterloo-road, of sums not exceeding these amounts respectively in respect of (1) buildings and railway sidings, and (2) lines, machinery, generating plant, rolling stock, and electrical equipment. This was agreed to.

Plague Precautions.—The Public Health Committee recommended certain precautionary measures against plague, and asked for authority to expend, if necessary, 50,000*l.* This was agreed to.

Streets and Street Traffic.—The General Purposes Committee brought up a report on the resolutions passed by the recent Conference on streets and street traffic. It was resolved to send copies to the Borough Councils for their consideration and report. We may be able to print the resolutions in our next issue.

Land Registry Office.—The Building Act Committee brought up the following report, the recommendation being agreed to:—

"We have had under consideration for some time past the scheme of H.M. Office of Works for the erection of the new Land Registry Office on the south side of Lincoln's Inn Fields, including the question of the frontages in Serle-street and Lincoln's Inn Fields. The original scheme provided that the new offices would be 50 ft. high, with a one-story building next Lincoln's Inn Fields partly on the site of the previously-existing one-story buildings and partly on the forecourt, with the boundary of the new building next Serle-street set back to the line of the area railings in front of Portugal-buildings, a strip of land next Serle-street given up to the public way, and also with an area not less than 4 ft. deep formed round the building for the purpose of affording light to the basement. As the Council is aware, buildings vested in or in the occupation of the Government are specially exempted from the provisions of the London Building Act, 1894, relating to buildings and structures, but we deemed it expedient in the public interest to enter into negotiation with H.M. Office of Works with a view to obtaining some slight modifications of the scheme. It subsequently came to our notice that there was a proposal before H.M. Office of Works to erect the new offices 60 ft. high with two stories in the roof to within 4 ft. of the pavement both in Lincoln's Inn Fields and Serle-street. We viewed this proposal, involving the erection of a building of great height projecting 28 ft. in advance of the general line of buildings on the south side of Lincoln's Inn Fields, with very great concern, and by our direction a communication was addressed to H.M. Office of Works pointing out that the arrangement was one which the Council would not sanction in the case of a private individual, and asking that the matter might be further considered. In reply, a letter was received from the Office of Works to the effect that the suggestion to erect the new buildings to the full height over the forecourt had been made by certain authorities interested in the new offices, but that the First Commissioner shared to a great extent the views of the Council upon the question, which was still under consideration. The clerk of the Council and the superintending architect have since, with our approval, been in further communication with the Office of Works, with the result that the following letter has now been received—. . . . [The letter stated that in view of all the circumstances, Mr. Akers Douglas has decided that the building line of the square shall be, if possible, adhered to; and in any case, should it be found necessary to advance the frontage of portions of the new building, such advance shall not extend further than 6 ft. beyond the building line of the square.] The arrangement proposed by H.M. Office of Works appears to us to be a very satisfactory one from the public point of view, especially having regard to the exemption of Government buildings from the provisions of the London Building Act, 1894, and to the fact that it is not, we understand, proposed to rebuilt on the site of the existing one-story buildings at the south-east corner of the fields. We have therefore given directions for a letter to be addressed to H.M. Office of Works, thanking the First Commissioner for the courtesy with which he has received the Council's representations, and stating that the Council, whilst welcoming the proposal contained in the letter of February 11th, ventures to express the hope that in the contemplated re-building the original line of frontage will be maintained. We recommend that the course taken be approved."

Tender.—It was agreed to accept the tender of Mr. H. W. Budd for 561*l.* for levelling the area cleared under the Mill-lane, Deptford, improvement scheme.

Labourers' Cottages and Lodges, Farmfield.—The Inebriates Acts Committee recommended—

(*a*) That the estimate of 2,898*l.* submitted by the Finance Committee be approved, and that an expenditure of not exceeding that sum be sanctioned for the erection of four labourers' cottages and two lodges on the Farmfield estate, and for incidental works and expenses in connexion therewith.

(*b*) That the Inebriates Acts Committee be authorised to invite tenders and take the necessary measures for the execution of the works.

The recommendations were agreed to.

Petroleum Flash Point.—The Public Health Committee brought up a further report on lamp accidents, and recommended that the Home Secretary be asked to introduce a Bill to raise the legal flash-point of petroleum from 73 deg. to 100 deg.—*i.e.*, to prevent the impor-

tation and use of the low-flash oil for the future.

The recommendation was adopted.

The Council adjourned soon after six o'clock.

CLERKS OF WORKS ASSOCIATION:

ANNUAL DINNER.

THE eighteenth annual dinner of the Clerks of Works' Association of Great Britain was held on Monday at the King's Hall, Holborn Restaurant. Mr. W. E. Riley, F.R.I.B.A., the Superintending Architect to the London County Council, presided, and was supported by Professor Roger Smith, Messrs. Maurice B. Adams, F. R. Farrow, T. Blashill, J. Hebb, Chatfeild Clarke, F. Plowman (President), Spencer Green (Vice-President), J. Aitchinson, J. C. Hill, J. W. Stone, J. H. Freeman, W. Woodward, &c. There were about 200 present.

After the toast to the "King and the Royal Family," the Chairman submitted "The Navy, Army, and Reserve Forces," which was responded to by Mr. J. Aitchinson.

Mr. Spencer Green, in proposing "The Architects and Surveyors," said this toast was particularly acceptable, because the architects and surveyors were their best friends, and they were pleased to have so many of them present. The ideal and aim of the members was to have the confidence of their employers—to serve the architects with unswerving fidelity — faithful and intrepid from beginning to end. By enjoying this confidence they felt that to some extent they relieved their architects from great anxiety on the different jobs, and enabled them to concentrate their best thoughts on the designs for future great works. The question of their salaries as clerks of works was of great importance to them. Some two years ago Mr. Dashwood, on behalf of the Association, asked for the support of architects and surveyors to the proposal to secure more adequate remuneration to clerks of works, maintaining that for large jobs they ought to receive six guineas per week. The architects and surveyors then present promised to do all in their power to bring about this very desirable increase. This promise, he was glad to say, had been largely fulfilled.

Mr. Thomas Blashill responded for the architects. He said that every practical architect must feel how much he was indebted to his clerk of works. It would be impossible to carry out works of the present magnitude without them—men of the greatest efficiency, who had been trained in the art of building and perfected themselves by other studies for the intricate business to which they had devoted themselves. It was only natural that as the buildings increased the remuneration of men whose duties were so onerous should increase also. It was the proper thing for any professional man when he got on in his work to look forward to be entrusted with more important duties at a higher remuneration. He would like to commend to their notice the question of the materials used in fireproof construction. He had had something to do in regard to the safety of town buildings for many years past, and it was a great subject. They would find it to their interest to pay special attention to the matter, because before long it would be a rarity to see a building of any importance being constructed that would not absolutely resist the kind of fires which were now so frequent.

Mr. Chatfeild Clarke then responded for the surveyors. He mentioned that the Editor of the *Builder* had pointed out over and over again that architects even did not get a fair recognition of their work. During the reign of our late Queen no art had gone more ahead than that of architecture, and no city in the world during the past fifty years had produced greater architects. In descriptions of buildings, however, the public were more interested in the cost than in the name of the architect. If the architect did not reap any recognition, what about the quantity surveyor? He was never heard of at all, and yet that profession had made great progress during the past half century.

Mr. Spooner, Past President, proposed the "Worshipful Company of Carpenters," to whom he said the Association were deeply indebted for encouragement and assistance.

Professor Roger Smith, the Master of the Carpenters' Company, in reply said that this Company, like the other City Companies, was of great antiquity. In the early days there was a spice of trades-unionism about their proceedings, but after a time the connexion with the trades dropped away. Now the connexion with the trades was being revived. This Company, by their lectures, examinations, the two technical schools which they maintained, and the house-room they gave to one or two technical societies, endeavoured to assist, as far as possible, the members of the carpenters' and joiners' trades, and in fact the whole building trade. Another method they had employed for this purpose was the holding of exhibitions of carpentry and joinery. They were going to hold an exhibition this year, and they had offered prizes for models of wooden houses. He believed that wooden houses formed one solution of the problem of housing the agricultural labourer, and he hoped that as a consequence of this forthcoming exhibition some wooden houses would be constructed in various parts of the country where they were not forbidden by by-laws.

"The Clerks of Works' Association" was then proposed by the Chairman. He said that many changes had taken place since Sir Christopher Wren was clerk of works at St. Paul's Cathedral. Their work was the emblem of the great morals of the world in representing construction as against destruction. There was a great moral lesson in the growth of a building, and its finished condition, when it was well done, was a moral example. He noticed in the qualifications in connexion with this Association one that stipulated that no man was eligible for membership until he had practised his art for three or four years and attained the age of forty years. It was an excellent rule to see that their members were properly qualified, but he thought some men might be qualified before they were forty. He was glad to see that they stipulated that the members should have a technical knowledge of carpentry, because his experience was that the best clerk of works was one who understood this. He also heartily approved the qualification that the members should be good sanitarians. With regard to the question of remuneration, he considered that there were few men engaged in work of this importance who were so badly paid as clerks of works. He trusted that the matter would be brought to a successful issue.

Mr. F. Plowman, the President, in response said the Association was founded nineteen years ago, and he was pleased to see many of those who originated it present that evening. It was their desire to raise the status of the Association, and they looked to the Royal Institute of British Architects and the Institution of Civil Engineers to assist them. The Association was of great usefulness, its papers, lectures, and meetings being of great advantage to the members. In regard to the question of remuneration, he condemned the system of public bodies like the London County Council paying three and a half guineas per week only to clerks of works.

Mr. J. Davies, in proposing "The Visitors," said that evolution of clerks of works commenced, not from the time of Sir Christopher Wren, but from the time of the building of Solomon's Temple, when Hiram was obviously the clerk of works.

Mr. J. C. Hill expressed the thanks of the visitors, and suggested that a benevolent fund should be formed in connexion with the Association.

Toasts to the Hon. Treasurer (Mr. G. Oldrid Scott) and the Chairman concluded the proceedings.

APPLICATIONS UNDER THE 1894 LONDON BUILDING ACT.

AT the meeting of the London County Council on Tuesday the following applications were considered. Those applications to which consent has been given are granted on certain conditions. Names of applicants are given in brackets. Buildings are new erections unless otherwise stated :—

Lines of Frontage.

Hackney, Central.—A one-story addition to Sussex Cottage, No. 10, Kenninghall-road, Upper Clapton, at the corner of London-road (Mr. S. A. Smith for Mr. M. Smith).—Consent.

Bethnal Green, South-West.—One-story shops on part of the forecourts of Nos. 86 and 88, Old Bethnal Green-road, Bethnal Green (Mr. C. B. Hollist, jun., for Mr. C. Sully).—Consent.

Fulham.†—A coal-cellar in front of a bakehouse at the rear of a house and shop on the west side of Tamworth-street, Fulham, at the corner of Ractonroad (Mr. W. Cave for Mr. J. Wendon).—Consent.

Hammersmith.—Five dwelling-houses on the west side of Pennard-road, Shepherd's Bush (Messrs. G. Lyford & Son).—Consent.

Bermondsey.†—Retention of a temporary one-story shop on the forecourt of No. 254, Southwark Park-road, Bermondsey (Messrs. Pearks, Gunston, & Tee, Limited).—Consent.

Lewisham.†—Two houses on the west side of Newlands Park, Sydenham, at the corner of Homecroft-road (Mr. E. Bates for Welford's Surrey Dairies, Limited).—Refused.

Bermondsey.—The retention of a wood and glass show-case, attached to the front of No. 32, Jamaica-road, Bermondsey (Mr. J. Harries for Mr. E. Ellis).—Refused.

Bermondsey.—One-story shops on the forecourts of Nos. 61 to 73 (odd numbers only), Lower-road, Rotherhithe (Mr. T. W. Biggs for Mr. S. Single and Messrs. Stansfeld & Co., Limited).—Refused.

Dulwich.—A warehouse building on the south-east side of Green-lane, Penge (Mr. E. Williams for Mr. A. Olby).—Refused.

Projections.

St. George, Hanover-square.—The retention of an iron and glass shelter in front of the porch of the Coburg Hotel, Carlos-place, St. George, Hanover-square (Mr. F. W. Anson for the Coburg Hotel, Limited).—Consent.

St. George, Hanover-square.—An additional story to a bay-window at No. 52A, Berkeley-square, St. George, Hanover-square, next Charles-street (Mr. Macartney).—Consent.

Wandsworth.—Six balconies in front of a block of residential flats to be erected on the south side of Lower Richmond-road, Putney, at the corner of The Platt (Messrs. Palgrave & Co. for Mr. G. Crowden). Consent.

Woolwich.†—A wooden portico, two wooden bay windows, and wooden barge-boards at the Red Lion public-house, Shooter's Hill, Plumstead (Mr. J. O. Cook for Mr. C. Beasley).—Consent.

City of London.—That Mr. P. B. Tubbs be informed that the Council is not prepared to accede to his request for an extension of the periods within which the erection of an iron landing at the first-floor level in front of No. 26, Paper-street, City, was required to be commenced and completed.—Agreed.

Width of Way.

Poplar.—A one-story addition at the rear of the Railway Tavern, West India Dock-road, Poplar, at less than the prescribed distance from the centre of Garford-street (Messrs. Yetts, Sturdy, & Usher for Mr. C. Brown).—Consent.

Mile End.—A temporary brick and iron church at the rear of No. 381, Mile End-road, Stepney, at less than the prescribed distance from the centre of Lawton-road (Mr. F. A. Walters for the Rev. W. Donlevy).—Consent.

Lines of Frontage and Width of Way.

Hammersmith.—An extension of the periods within which the erection of two dwelling-houses on the western side of Goodwin-road, Greenside-road, Hammersmith, was required to be commenced and completed (Mr. F. S. Hammond).—Consent.

Hoxton.—A stancheon and projecting stonework to an addition to the London Music Hall, High-street, Shoreditch, at less than the prescribed distance from the centre of Jane Shore-court, and in advance of the general line of buildings in that court (Mr. F. Matcham for the London Music-hall Company, Limited).—Consent.

Brixton.†—A block of residential flats on the site of Nos. 400 and 402, Coldharbour-lane, Brixton (Mr. G. Windsor for Mr. A. G. H. Brown).—Refused.

Clapham.†—Ten houses with bay-windows on the eastern side of Loats-road, Clapham, and of seven houses with bay-windows on the western side of Lyham-road (Messrs. Down Bros. for Mrs. R. S. Gray).—Refused.

Hammersmith.—Two blocks of buildings on the west side of Ravenscourt-park, Hammersmith, one on each side of Hamlet-gardens (Mr. T. Athey for Mr. W. H. Gibbs).—Refused.

Width of Way and Space at Rear.

Whitechapel.—Deviations from the plan certified by the District Surveyor, under Sections 13 and 43 of the Act, so far as relates to the proposed rebuilding of the back portion of Nos. 16A and 17A, Bell-lane, Spitalfields (Messrs. Wigg, Oliver, Hudson, & Co. for Mr. N. Frost).—Consent.

Greenwich.—That the application of Mr. R. Whaley for an extension of the periods within which the rebuilding of No. 222, Trafalgar-road, East Greenwich, to abut also upon Colomb-street, was to be commenced and completed, be granted.—Agreed.

Width of Way and Dispensation of By-law.

Deptford.—A one-story addition to a saw mill at the Baltic Saw Mills, Blackhorse-road, Deptford, with the boundary fence at less than the prescribed distance from the centre of the street, and without the site of the addition being covered with a layer of good concrete at least 6 in. thick, as required by such by-laws (Mr. H. E. Newton for Mr. A. Capon).—Consent.

Formation of Streets.

Wandsworth.†—That an order be issued to Mr. J. Briggs, for the Housing Committee of the Council,

sanctioning the formation or laying out of new streets for carriage traffic on the Totterdown Fields Estate, Upper Tooting-road, Wandsworth, and in connexion therewith the widening of a portion of Church-lane and of a footpath leading to Totterdown.—Agreed.

Bethnal Green, South-West.—That an order be issued to Mr. H. H. Collins, sanctioning the formation or laying out of a new street, for carriage traffic, to lead from Blythe-street, Bethnal Green, to a proposed new street to be named Teesdale-street (for Messrs. Davis Brothers). That the name Aller-street be approved for the new street.—Agreed.

Islington, West.—That the period within which the street for foot traffic, to be named Macready-place, to lead from Holloway-road to Warlters-road, Islington, was required to be paved, and to have posts erected so as to prevent such street being used for carriage traffic, be extended to two years from May 8, 1900.—Agreed.

Woolwich.—That an order be issued to Mr. J. O. Cook sanctioning the formation or laying out of a new street for carriage traffic to form a continuation of Marmadon-road, Plumstead, into Church Manor-way, and in connexion therewith the widening of a portion of Church Manor-way (for Mr. T. Driver.) That the name Marmadon-road (in continuation) be approved for the new street.—Agreed.

Woolwich.—That an order be issued to Messrs. Meakin & Archer, sanctioning the formation or laying out of a new street for carriage traffic in continuation of Marmadon-road, Plumstead. That the name Marmadon-road (in continuation) be approved for the new street.—Agreed.

Woolwich.—A variation from the plan sanctioned on October 10, 1899, for the formation of new streets upon the Eltham Park Estate, Eltham, so far as relates to the alterations in the width of the street, to be named Glenesk-road (Mr. R. Stewart for Mr. A. Cameron Corbett, M.P.).—Refused.

Lewisham.†—That an order be issued to Messr H. & G. Taylor, refusing to sanction the formation or laying out of new streets for carria e traffic out of Laleham-road, Catford, on the site of the Catford sports ground.—Refused.

Width of Way and Artisans' Dwellings.

Lambeth, North.—Three blocks of intended dwelling-houses, to be inhabited by persons of the working-class, and proposed to be erected, not abutting upon a street, on a site between Gloucester-street and Burdett-street, Lambeth, and two blocks of intended dwelling-houses, to be inhabited by persons of the working-class, proposed to be erected on the north side of Burdett-street and South side of Gloucester-street respectively, with irregular open spaces at the rear, and the boundary fences of the site at less than the prescribed distance from the centres of Gloucester-street and Burdett-street (Mr. S. Bircham for the London and South Western Railway Company).—Consent.

Means of Escape from top of High Buildings.

Brixton.—Means of escape in case of fire, proposed to be provided on the fifth story of a building to be known as Ingram House, to be erected on a site on the east side of Eastcote-street, Stockwell, at the rear of Nos. 40, 42, 44 and 46, Stockwell-road (the upper surface of the floor of which story will be above 60 ft. from the street level) for the persons dwelling or employed therein (Mr. A. T. Bolton and Mr. C. Clark, for Ingram Houses, Limited).—Consent.

Holborn.—Means of escape in case of fire, proposed to be provided on the topmost story of the Thackeray Temperance Hotel, Nos. 56 and 57, Great Russell-street, Bloomsbury—the upper surface of the floor of which story is above 60 ft. from the street level (Mr. C. Fitzroy Doll, for Mr. J. Truslove).—Consent.

The recommendations marked † are contrary to the views of the Local Authorities.

BOOKS RECEIVED.

THE CEMENT INDUSTRY. (*Engineering Record* Office, New York.)

LIME, MORTAR, AND CEMENT. By W. J. Dibdin. (Sanitary Publishing Company.)

BERMONDSEY: ITS HISTORIC MEMOIRS AND ASSOCIATIONS. By Edward T. Clarke. (Elliot Stock.)

ROYAL CALEDONIAN ASYLUM.—Subject to the sanction of their project by the Charity Commissioners, the London County Council have agreed to acquire at an estimated cost of 16,500*l.* the buildings and site covering just 2 acres, and having a frontage of 250 ft. in Caledonian-road, Holloway, of the Royal Caledonian Asylum, which was founded in 1815. The Governors of the Asylum have obtained a site of 7 acres for new schools in Hertfordshire; the London County Council propose to take the Caledonian-road property for the erection, in terms of the Housing of the Working Classes Act, 1890, of artisans' dwellings which will accommodate 1,400 persons.

Correspondence.

To the Editor of THE BUILDER.

ARCHITECTURE IN CRETE AND TURKEY.

SIR,—In connexion with my essay on this subject published in your last week's issue, I should like to call attention to the similarity in interior design of the Green Turbeh at Broussa (mentioned in my paper) and a tomb at the Mosque of Bajazet II. at Constantinople. When walking round the South Kensington collection the other evening I noticed a water-colour drawing of the interior of the Bajazet Tomb, by the late J. F. Lewis, R.A., which might have been copied, in every particular, from the earlier tomb at Broussa.

I should like to add that two of the photographs illustrating Candia published by you last week were taken by Mr. D. G. Hogarth—the back of the Armoury, and the Turkish Arches in the main street. The others, as you stated, were taken by Mr. F. B. Welch.

Also, I should have said that a later Greek and not a later Roman settlement existed beside the ancient remains at Ghoulas, in Crete.

D. T. FYFE.

The Student's Column.

SANITARY FITTINGS AND PLUMBING.

8.—LAVATORIES.

THE material generally used for household lavatories is white earthenware or pottery, commonly known as porcelain or by some special name such as queensware. Better fittings are now made of a semi-vitrified porcelain, while for the strongest lavatories enamelled fireclay is often adopted. Cast-iron basins are also made, enamelled in various ways.

The ordinary lavatory, with pottery overflow for connexion with lead pipe and with plug waste, is too well known to need illustration. It is generally defective in several important details — the overflow is too small to carry off the water from a high-pressure service, and cannot possibly be kept clean, and the waste is too small to admit of the basin being emptied with sufficient rapidity either for convenience in use or for cleansing the trap and waste-pipe. The grating under the plug is also so small, that it is soon choked with hairs, soap, &c., and is placed at such a depth that these cannot easily be removed. At one time the dishes for soap and brushes were sunk below the slab, and the water drained away through small holes into pottery nozzles, from which it was conveyed by small pipes to the trap under the basin. These holes and pipes were difficult to keep clean, and have long been superseded by simple grooves which convey the water from the dishes directly into the basin.

The improvement of the overflow was the next stage. In order to simplify the plumber's work, the overflow was formed entirely in pottery from the overflow openings to the waste-outlet, a perforated washer being used for the plug, as shown in fig. 7, chapter 7 (page 167 *ante*). This overflow was quite as difficult to clean as the old-fashioned pipe, and a further improvement was effected by continuing the overflow tube up through the slab in the manner described and illustrated in the chapters on sinks. The opening in the slab is generally fitted with a loose porcelain or metal cover. Such an arrangement is shown in fig. 1; in this case a safety plug with spindle and knob takes the place of the ordinary plug and chain, the advantages being that the plug cannot be removed, that the basin cannot be damaged by letting the plug fall upon it, and that the grating is level with the bottom of the basin, and can, therefore, easily be kept clean and free from obstruction.

One of the latest modifications of this kind of overflow is shown in fig. 2, in combination with a new waste arrangement. The overflow is of large area, so as to be capable of carrying away the water from a high-pressure service, and is covered with a nickel-plated brass grating, hinged at the top. The valve, or plug, which is covered with soft rubber, works horizontally instead of vertically, and is actuated by the lever handle at the back of the slab. The discharge grating may be of porcelain, or of nickel-plated brass hinged so that the plug and seating can be cleaned. This lavatory is known as Shanks's "Perfecto."

The standing waste-and-overflow has also been applied to lavatories. In the earlier arrangements the apparatus was concealed in a pottery chamber at the back of the basin, and was not easily accessible for cleansing; an overflow of this type is shown in fig. 3. A modified form, known as Milne's patent "Lift-out" accessible waste, is illustrated in fig. 4; the chamber is of good size, and the standing waste, together with the knob and shield, can be removed by a simple pull, and can be pressed back into position with equal ease. The shape of the chamber is better than that shown in fig. 3, as the long acute angle at the bottom of the latter is avoided by making the back of the basin vertical.

Other forms of standing waste are exposed to view in the basin. The "Neros" waste (fig. 5) is of this type. By lifting the knob and giving it a quarter-turn the waste is suspended above its seat, so that the water can escape through the holes in the lower portion; the holes near the top are for the overflow. Doulton's "Waverley" waste (fig. 6) is a modification of this type, and possesses some interesting features. An outlet grate is provided in the shape of a perforated flange around the bottom of the cylinder in which the standing waste slides. When the waste is raised from its seat the water escapes through the grating. As in the other types, the waste can be suspended by raising the knob and giving it a quarter-turn. The grating is fitted into a screwed washer, and can be easily removed by unscrewing it, and the standing waste can then be taken out.

One of the most recent forms of standing waste (fig. 7) is also the simplest, being nothing more than a tube of xylonite slightly tapered at the bottom to fit into the outlet washer. An arched metal bar is fixed across the top for the attachment of a chain. In other words, a xylonite standing waste-and-overflow takes the place of the ordinary brass or vulcanite plug. This waste, designed by Adams & Co., can easily be kept clean, but on account of the somewhat fragile nature of the material can only be recommended for houses and other places where the fittings will be carefully used.

The common lavatory basin is generally round or oval, but the D-shaped basin is now preferred as more convenient in use. Sometimes the central part of the front is slightly recessed, so that the person using the lavatory can stand more closely to the basin. The slab is usually in one piece with the basin, and low pottery skirting along the back and ends also forms an integral part of the fitting. Many high-class lavatories are made with porcelain basins and marble or onyx slabs and skirtings about 1 in. thick; it is an advantage to have the slabs slightly dished (fig. 8) to prevent water flowing over the slab on to the floor. Slate slabs are used instead of marble for cheaper fittings. The bottom of a lavatory basin ought to have a good slope to the waste-outlet, so as to prevent as much as possible the deposit of soapsuds. Figs. 1 to 5 show different sections of basins.

Twin lavatories, containing two basins with slab and skirting, are now made in one piece of pottery, and, as already mentioned, combined sinks and lavatories can be obtained in a single piece of enamelled fireclay.

The most general size of lavatory slabs is about 27 in. by 20 in., but many smaller sizes are made, and also larger sizes up to about 30 in. by 22 in. A specially large lavatory made by one firm has a slab measuring 39⅜ in. by 28½ in., with a rectangular basin 24½ in. by 16¼ in. The marble slabs used for lavatories range in size from about 30 in. by 24 in. to 36 in. by 25 in.

Tip-up lavatories were at one time much used for hotels, railway stations, and other places where it is essential that the water should be rapidly emptied, but they are not as satisfactory in other respects as the modern ordinary basin. They consist as a rule of two principal parts—the basin and the container, as shown in fig. 9—and are made either of porcelain or cast iron. The basin is fitted outside with two metal bushes, one at each side, to receive the ends of two trunnions, on which the basin swings; a buffer is provided to keep the basin at its normal level. An improved form of pivot is made, so that the basin can be

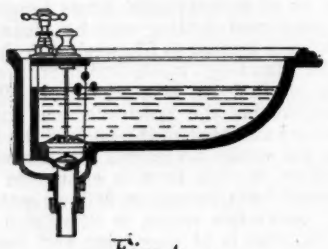


Fig 1.

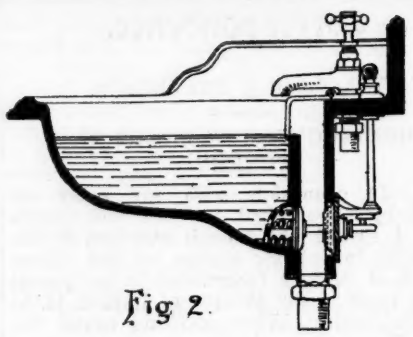


Fig 2.

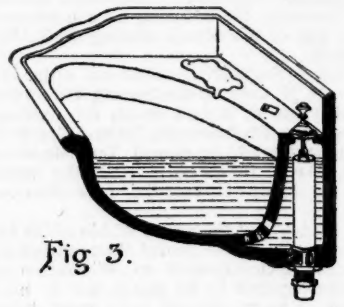


Fig 3.

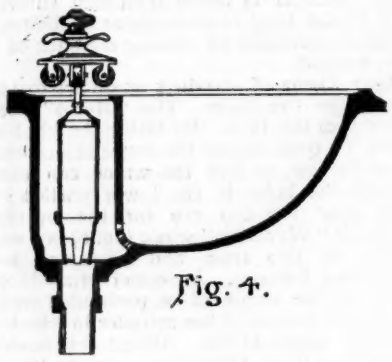


Fig. 4.

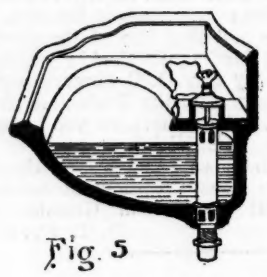


Fig. 5

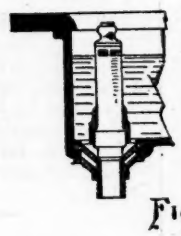


Fig. 6

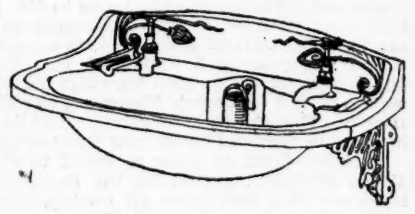


Fig 7.

Fig 8.

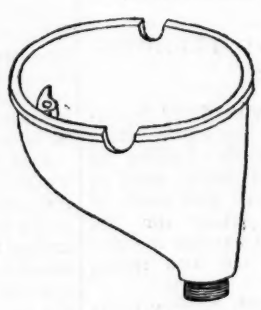
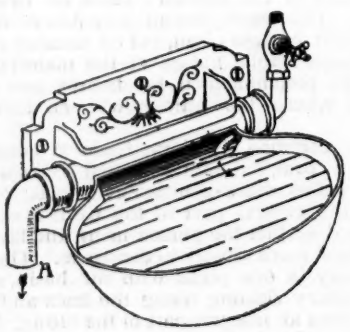
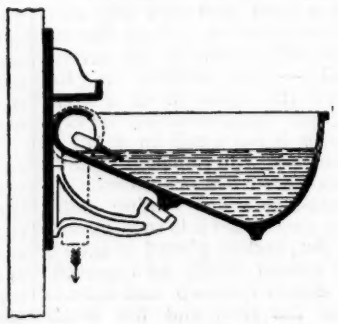


Fig 9





Illustrations to Student's Column.

Fig 10.

removed without pulling out the pin or unscrewing the trunnion. Adams's "Tip-over" lavatory (fig. 10) is of more novel form, but is only made in "metallic-enamelled" cast-iron, and is intended for cheap work. In this the ordinary container is superseded by a horizontal outlet at the back of the basin. As shown in the illustrations, the back of the basin is curved over, and is continued in each direction as a pipe stopped at one end and connected at the other with the waste-pipe A by means of a joint which permits the basin to be raised so that the water can escape down the waste-pipe. Unless the waste-pipe is of large size, the rapidity of discharge will be no greater than in the ordinary basin with large plug, and in any case there will be considerable risk of splashing.

The siphonic discharge has also been applied to lavatories as to water-closets, but there are certain disadvantages in the apparatus which render it of doubtful value.

Some lavatories have been made with flushing rims, so that the surface of the pottery can be cleansed by simply turning the tap. They have not proved very satisfactory, and are seldom used.

THE NEW APOLLO THEATRE, LONDON.—This theatre has been erected in Shaftesbury-avenue, next door to the Lyric Theatre. The seating capacity is for 1,200 persons. The lighting is entirely by electricity. Mr. Lewin Sharp is the architect of the building.

GENERAL BUILDING NEWS.

WESLEYAN CHURCH, LLANISHEN, GLAMORGANSHIRE.—A new Wesleyan Methodist Chapel was opened at Llanishen recently. The edifice is erected in the centre of the village, and is approached by a broad thoroughfare branching from the main road from Cardiff to Llanishen. The accommodation is for about 275 people. A gallery has been erected at the northern end to contain the organ, choir, and supplementary seating, and it is intended in the future to extend this gallery along the sides of the building. An assembly-room, some 30 ft. in length, has been erected at the rear to be used for school-room purposes. The building, which has been erected from plans by Mr. E. Seward, is of Newbridge stone with Bath stone dressings, and is in the late Perpendicular style. The total cost of erection is 1,800*l.*

METHODIST CHAPEL, HILLSBRO', SHEFFIELD.—It is proposed to erect a new methodist chapel at Hillsbro', on Langsett-road, from the design of Mr. John W. Firth, of Oldham. The building will be a lofty structure, and at the corner, to the left of the main entrance, it will be surmounted by a spire. Choir and ministers' vestries will be provided, along with a gallery at the end of the building, over the main entrance, and when completed the church will be capable of providing seating accommodation for from 450 to 500 persons. At the rear, adjoining the main structure, will be placed the large school. The school will afford accommodation for 350 persons, and classrooms will be provided, including a room for a men's class. The entrance to the schools will be from the side street.

CATHOLIC CHURCH, SEAFORTH.—The new Catholic church at Seaforth, which is dedicated to Our Lady Star of the Sea, was opened on the 10th inst. The new church, which has accommodation for 600, is situated on a corner site on the north side of Church-road and the west side of Crescent-road, Seaforth, the main gable facing south towards Church-road. It consists of naves and aisles, apsidal chancel, and two side chapels, baptistry, antechapel, and three porches, together 125 ft. long and 55 ft. wide, with three confessionals, priests' and boys' sacristies, and passage behind the chancel for convenient access from the sacristies. Above the antechapel and porches are a choir gallery and organ chamber, separated from the nave by a stone screen with traceried balustrade. The nave arcade is supported by granite columns, with carved capitals. Above these, springing from carved corbels, granite shafts are carried up to the roof. The nave is lighted by traceried windows. The roof is carried up by hammer beam principals, with traceried spandrels, &c. The chancel floor, of oak parquetry, is raised six steps above that of the nave. A lofty arch divides the chancel from the nave, and beyond it, the chancel shows five large traceried and gabled windows, three of which are filled with stained glass by Messrs. Hardman, of Birmingham. The church is lighted by electricity, and warmed by low-pressure hot-water pipes. Externally, the church is built of Parbold stone, with Runcorn stone dressings. The south gable is divided into two bays for the greater part of its height, with statue niche in centre between two traceried windows, and rose window above. At the south-east corner of the church a tower and spire are intended, but these are at present completed only as high as the nave. Messrs. Sinnott, Sinnott, & Powell, of Liverpool, are the architects; Mr. Williams, Seaforth, clerk of works; and Mr. W. Winnard, Wigan, the contractor. The contract amount is between 10,000*l.* and 11,000*l.* The greater part of the carving has been executed by Mr. P. Honan, of Liverpool.

FREE LIBRARY, BRISTOL. — The new North District Library, Cheltenham-road, Bristol, was opened on the 13th inst. The building was designed by Mr. Gough, and erected by Mr. Wilkins.

CHANCELLOR MEMORIAL CHURCH, BELFAST.—In College-street South on the 9th inst. the foundation-stones were laid of this edifice. The new structure is being built on the site of the old Reformed Presbyterian Church. The site of the old church and schools has been taken, and on this building operations are being carried out. In College-street South the front is occupied by a vestibule and entrance to the church. Opening off the vestibule are classroom, library, and cloakroom accommodation. A separate entrance will give access to the library and schoolroom, so that these portions of the buildings can be used for week-night meetings independent of the church. The interior of the church is 60 ft. long by 44 ft. wide, with a small end gallery. It is lighted by windows grouped in pairs between each roof principal. The gable end of the edifice will be occupied by a pulpit of pitch pine, with a panelled and cusped front. In front of this at a lower level will be the platform, with choir seats at sides and open space in centre for communion. Behind the pulpit will be an arched recess. The seating is to be of selected pitch pine. Artificial lighting will be by electricity throughout the premises. The school and classroom accommodation is arranged for all purposes that the buildings will be used for, either for the Sabbath-school or for congregational meetings. On the first floor the lecture hall will be 44 ft. long by 24 ft. wide, and a classroom at one end can be opened up to supplement the accommodation of this hall by means of a sliding partition. Accommodation is provided for a

caretaker's residence. The exterior of the church is of red brick, with red stone dressings. Mr. Thomas M'Millan, the builder, is carrying out the work from the plans and under the superintendence of Messrs. J. J. Phillips & Son, architects.

SUNDAY SCHOOL BUILDING, PENISTONE, YORKSHIRE.—Memorial stones have just been laid of a Sunday-school building at Penistone. Mr. J. W. Firth, of Oldham, is the architect.

BUSINESS PREMISES, BELFAST.—No. 39, High-street, Belfast, has recently been altered to accommodate a clothier's business. The work was carried out under the supervision of Mr. W. J. Fennell by the following contractors :—Mr. J. Andrews, the shop-front ; Mr. W. Agnew, the interior alterations and fittings ; Messrs. Gilmore & Lytle, the electric lighting ; painting and ceiling decorations, Mr. John Moore, ; and polishing, Mr. Edward Killen.

OXFORD BOARD SCHOOLS.—Accommodation for boys has been provided in Gloucester-green, Oxford, a girls' school and pupils teachers' centre has been erected in New Inn Hall-street, and the East Oxford School in Union-street, Cowley-road, is approaching completion, the total estimated cost of sites, buildings, and equipments being 35,000*l*. The Central Girls' schools are situated in New Inn Hall-street, and besides accommodation for 270 girls, contains a cookery centre, where some fifty children can be taught cookery, and also a pupil teachers' centre for 100 pupil teachers, male and female. In designing these buildings, the Board were of opinion that they should be of such a nature as to hold their own, as far as possible, with the colleges, which are in close proximity, as it was thought an ordinary brick School Board building, such as is often seen in other towns, would be out of place in the heart of a University city ; hence a stone front was adopted, and some degree of dignity was aimed at. The roofs are all covered with Yorkshire stone slates, which are much larger than the stone slates usually seen in Oxford. There is also a turret containing a bell. It was found necessary to have four entrances and two staircases abutting on New Inn Hall-street. Two have been arranged to open direct on to the pavement, these being for the pupil teachers, and two for the girls into the forecourt. Over these two latter doorways are carved panels representing Life and Knowledge, Life being represented by the pomegranate tree and Knowledge by the myrtle. On each tree seven doves are introduced, representing the seven gifts of the Holy Spirit. The forecourt is enclosed by an iron railing, with gateway in same. On the ground floor the girls' school is arranged round a large hall ; off this hall open five classrooms. The cookery centre is raised on columns in the playground, underneath being a covered playground for the girls in wet weather. The accommodation consists of a room about 27 ft. by 25 ft., where the cooking is taught ; also a cloak-room and a scullery, which latter opens off the cookery classroom. The classroom, besides having a close range, has also an open fire range and gas stove, so that children can be taught to cook on the various stoves most commonly found in their homes. The two staircases before referred to lead to the first floor, where are three classrooms for the pupil teachers, besides their cloak-rooms, &c., and a room for the teachers themselves, The classrooms are all arranged so as not to overlook the street, thus avoiding the noise. Messrs. T. H. Kingerlee & Son, of Oxford, have erected the schools. The Central Boys' School is situated in Gloucester-green, where the Board had acquired property on which stood some rather picturesque old cottages. The Board consulted their architect as to the possibility of incorporating any of these cottages in his design for the new school. Mr. Stokes, however, reported that this would be very detrimental to the school itself, and reluctantly advised the Board to abandon the idea. It was then decided to try and give the new school somewhat of the picturesque character of the old cottages, hence the stone bay windows overlooking the market place, these bay windows lighting cloakrooms on the ground floor, and the master's or committee rooms, &c., on the first floor. The cloakrooms, &c., are kept to this front as considerable noise at times goes on in the market place. The material used for the exterior, apart from the bay windows just described, is of two kinds of brick, arranged in panels and bands. The roofs are covered with Yorkshire stone slates, and there is a bell turret. Over the principal entrance, which is Gothic in character, is carving representing on one hand King Alfred, and on the other St. Frideswide, both in the act of instructing children. The site being an exceedingly irregular one, a feature in the shape of what is practically a circular central hall, was adopted, off which are classrooms to accommodate 220 boys. The same system of warming and ventilating as at New Inn Hall-street schools is adopted. Over two of the classrooms is placed a manual room, some 45 ft. long by 22 ft. wide, where boys will be instructed in some useful trade, such as carpentry. This room is approached by a separate and independent staircase, so that boys belonging to other schools can attend the classes, in the same way that girls receiving instruction in other schools will be taught to cook at New Inn Hall-street. This school has already been in use for some little time, and was erected by Mr. John Wooldridge, of Oxford. Besides the two school buildings just described, the Board is erecting a third, which is rapidly approaching completion at East Oxford. This consists of three departments, viz., boys', girls', and infants', arranged to accommodate a total of about 400 children, with provision for an extension to hold about another 200. In addition, there is a cookery centre, similar to the one at New Inn Hall-street, and a manual room for the boys of a like nature to that at Gloucester-green School. The site, having once been a brickfield, where extensive excavations had taken place, the building had to be arranged to stand where practicable upon the unexcavated part of the ground, hence the somewhat irregular arrangement. Room for the infants' school, which is a separate building, could not, however, be found on the solid ground ; it has, therefore, been placed on a concrete raft, and "floats" on the made ground thrown into the old excavations. This school has been erected of brick throughout, and is covered with a tile roof. The infants' school, which, as previously stated, is a detached building, when completed will have four large classrooms, opening off a spacious central hall, where musical drill, &c., can take place. The boys' and girls' schools are placed in one block, the girls being on the upper floor. The plan of these two floors is practically identical, and, when completed, each will consist of a large central hall and four classrooms. These buildings are nearly finished. Messrs. Boxall & Sons, of Pangbourne, are the builders. The architect for all three schools is Mr. Leonard Stokes, of Westminster.—*Oxford Chronicle.*

COTTAGE HOSPITAL, SELBY, YORKSHIRE.—A cottage hospital, at the bottom of New-lane, opposite the School of Art, Selby, was opened on the 16th inst. The building has two stories, and is of brick with stone dressings. On the ground-floor are waiting-room, dispensary, matron's room, store-room, accident ward, and bathroom. The height of the ward is 12 ft., and the walls are plastered in Portland and Parian cement. The floors are of pitch-pine boards, and the place is heated by means of a Shorland stove. Upstairs are three bedrooms, and adjoining are the bathroom and linen-closets. The roof is covered with Penrhyn slates and Staffordshire red ridge. The cost of the building has been about 1,500*l*. It was erected by Mr. T. S. Ullathorne, of Selby, from designs by Mr. Brownlow Thompson, of Hull.

WAREHOUSE, LEEDS.—It is proposed to erect a new warehouse in Wellington-street, Leeds, from designs prepared by Messrs. Corson & Jones and Perkin & Bulmer, architects, Leeds. The principal elevation will be 186 feet long.

PROPOSED REBUILDING OF LIVERPOOL CHILDREN'S INFIRMARY.—At the recent annual meeting of the subscribers to the Liverpool Infirmary for Children, a report was read which stated that owing to an outbreak of diphtheria the infirmary, which is situated in Myrtle-street, had been closed for six weeks during the past year, when structural alterations to improve the sanitary condition of the infirmary had been carried out. Another outbreak having occurred, Mr. T. W. Cutler, of London, was consulted. Mr. Cutler submitted a plan for extensive alterations at an estimated cost of 30,000*l*. However, as the proposed alterations would entail a reduction in the number of beds, it has been decided to erect an entirely new building at a cost of 50,000*l*.

CHURCH INSTITUTE, RIPON.—Premises which have been erected in High Skellgate for the Ripon Church Institute were opened on the 8th inst. The building contains a reading-room 28 ft. by 19 ft. Mr. T. Wall, of Ripon, was the architect, the contractors being as follows :—Mr. J. H. Coldbeck, the masonry, carpentering, and plastering ; Messrs. Benson & White, the plumbing and glazing ; Mr. J. Baynes, the slating ; and Mr. A. J. G. Almond, the painting. The stoves, tiled hearths, &c., were supplied by Mr. W. E. Dixon.

SANITARY AND ENGINEERING NEWS.

WATER PUMPING STATION, FRAMPTON COTTERELL, GLOUCESTERSHIRE.—A new engine-house and pumping engine have been erected at the West Gloucestershire Water Company's works at Frampton Cotterell. The engine was started on the 11th inst. Mr. E. D. Marten was the engineer. The pumping plant has been made and erected by Messrs. Easton and Company, Limited, of Erith, and the engine-house has been built by Messrs. Cowlin and Son, of Bristol.

SEWAGE DISPOSAL NEAR DONCASTER.—A Local Government Board inquiry was held at Doncaster by Mr. W. O. E. Meade-King, C.E., as to the compulsory purchase of land for sewerage and sewage disposal purposes for Askern, Bawtry, Bentley, Bentley-road, and Arksey. The schemes, which have been prepared by Messrs. D. Balfour & Son, of London and Newcastle-on-Tyne, comprise the main sewerage of the above places, all of which will gravitate to underground storage tanks, from which the sewage will be pumped to the site of disposal works there, to be treated in bacterial tanks, and afterwards on land. Various opponents to the scheme were represented by counsel, who objected chiefly on the ground of cost.

MISCELLANEOUS.

RAILWAY EXTENSIONS, MANCHESTER.—Victoria station, north-west Manchester, is being enlarged by the Lancashire and Yorkshire Railway Company. New platforms for local trains, and a special siding for the fish trade will be provided. In connexion with the improvements, a new bridge has been built by the company to connect Corporation-street with Cheetham Hill-road. The bridge was built by Messrs. Aston, Smith, Sons, & Senior, of Manchester, and is partly a steel-girder bridge, but has a double brick arch, the upper arch being immediately under the roadway, and the lower one forming a roof to a culvert over the river Irk.

DISCOVERY OF A ROMAN PAVEMENT, LEICESTER.—During the excavations now proceeding at the site of the Highcross Coffee House, at the corner of Highcross and High-streets, an excellently-preserved portion of a Roman pavement has been discovered. At the present time only a small portion has been uncovered, but this is being taken great care of, and arrangements are being made to have the surrounding earth carefully removed, so as not to damage the other part of the pavement. It is said that the portion which has been already laid bare compares favourably with any other pavement found in Leicester, the cubes being very small, and being set in an artistic pattern with that care and exactness which characterised the best Roman work. What will be done with the discovery is not yet decided, and probably will form the subject of discussion between the directors of the Coffee House Company and the Corporation, but the probability is that the stone work will be removed in as complete a form as possible.—*Leicester Post.*

SOCIETY OF ANTIQUARIES OF SCOTLAND.—The usual monthly meeting of the Society of Antiquaries of Scotland was held in their library at the Museum, Queen-street, Edinburgh, on the 11th inst. Sir Thomas Gibson-Carmichael, vice-president, presiding. In the first paper, Mr. Andrew W. Lyons, architect, gave a detailed description of the painted ceiling in the Montgomery aisle of the Old Church at Largs, of which he had presented to the Museum a drawing made to scale in 1897. The roof, which is about 29 ft. by 24 ft., is barrel-vaulted and lined with wood, painted on the under faces of the boards with a most elaborate and beautifully designed and executed series of subjects historical, emblematical, or heraldic, arranged in forty-one compartments, divided from each other by imitation mouldings painted in monochrome. The central panel contains a mantled escutcheon, charged with the quartered armorial bearings of Montgomery and Eglinton, impaled with those of Douglas and Mar, surmounted by a knight's helmet, crest, and motto. Beneath the coat of arms is an oblong cartouche, with the names of Sir Robert Montgomery and Dame Margaret Douglas, and suspended from it a circular tablet with the date 1638. In another compartment are four shields, with the arms of Eglinton, Semple, Drumlanrig, and Lochinvar. Others have emblematical representation of the virtues, the signs of the Zodiac, and the seasons, with landscapes of the surrounding district. One of the larger panels has a representation of the Temptation in the Garden of Eden, and the other has what is believed to be a historical event connected with the Montgomery family, the tragic death of the wife of Sir Robert Montgomery from the kick of a horse in 1624. In the same panel is the signature of the artist, Stalker, of whom nothing is known, and the date 1638. The ceiling, which is most elaborate, well-proportioned, and beautiful in design, may fairly claim to be the best example of that early seventeenth century tempera decorative painting now extant in Scotland. In the next paper Dr. Joseph Anderson gave an account of a remarkable group of brochs in the district of Keiss, Caithness, recently excavated by Sir Francis Tress Barry, Bart., M.P., Keiss Castle.

THE COST OF MUNICIPAL HOUSE BUILDING, SHEFFIELD.—The minutes of the Sheffield Health Committee, submitted at the last meeting of the Sheffield Corporation, contained a report by the City Surveyor that ten of the cottages in Handsla-lane were ready for occupation, and that five more would be ready in a few days. The approximate total cost was stated to be 5,793*l*. 10s. 3d.—Mr. Turner asked whether the plans had been carried out as passed by the Health Committee, and whether the cost had exceeded the estimate ?—Mr. Uttley defended Corporation officials who were attacked, and who had no opportunity of denying what was said against them. The cost, as a matter of fact, was slightly under the estimate. Mr. Uttley went on to describe the houses, and speaking of the rents (6s. 6d. per week) said if people were to have all the conveniences provided they would have to pay more rent. It was better for a working man to pay 1s. a week more in rent and have an entire yard, and live decently and in comfort, than to pay a low rent and have to mix with other people in the same yard. The people who argued that the houses were too well built did not understand what belonged to good sanitation and property.—Sir Charles Skelton said those who formed committees should exercise the common-sense that they would exercise if they were doing their own business. There was not a member of the Council who would have required twenty-six plans before they decided what they would have in connexion with property of their

own. The right thing to do was to decide what was wanted before an architect was called in.—Mr. Shaw said he thought the rent of the property was exceptionally high for that class of house. In Richmond the Corporation built twenty-two houses for 5,588*l.*, including land, and they were superior in appearance to those in Sheffield. They were larger, and the rent was 7s. 6d. a week. Since then more houses had been built at Richmond, and the difference in labour and the cost of material would only make a difference of 3d. a week in the rent. In his opinion the rooms of the Hands-lane houses were too small. If the Corporation could not build substantial cottages with the land at 4s. 6d. a yard they had better give it up. Mr. Shaw also argued that too much was being put aside for the sinking fund. —Mr. Whiteley held that the houses were better built than was absolutely necessary to serve the purpose.—Mr. Fenton pointed out that the houses were small, and said in his opinion they were not worth the rent proposed. It was absurd to spend 280*l.* or 290*l.* on a five-roomed house.—Alderman J. W. Wilson said it would not do for the Corporation to erect jerry-built houses, and they could not do the work as cheaply as other people. The cottages were well built, and there should be no difficulty in finding tenants.—Mr. Castle said they should leave the matter in the hands of the City Surveyor, and not take the expert advice of the Council. The Corporation did not want to provide for the class who could afford to pay 6s. 6d. or 7s. a week. This class knew how to provide for themselves. The class they should provide for was the class who wanted rents at not more than 5s. The City Surveyor could tell them how to build a house to be let at that price. The estimate in the present instance had not been exceeded.—Alderman Carter, in reply, said the plans were submitted, and Mr. Whiteley saw and criticised them. Alterations were made from time to time. The estimates also went before Mr. Whiteley, who raised no objection to them, and he could not understand why Mr. Whiteley said afterwards that the houses had cost more than they should have done. It was a mistake to suppose that the cottages had cost too much, and he knew instances where, in private enterprise, property had cost more. Alderman Carter quoted figures dealing with lower rents which might have been charged, and said the committee, wishing to cover everything, had fixed the rent at 6s. 6d. If it was found at some future time that the rents could be reduced without loss to the Corporation, it would be easy to do that—far easier than raising the rent. —The minutes of the Health Committee were then adopted.

THE INSTITUTE OF SANITARY ENGINEERS, INCORPORATED.—At a meeting of the Election Committee held on the 13th inst., the following gentlemen were elected :—Members : H. J. S. Abrams, London ; W. N. Cosgrave, Straits Settlements ; T. A. Groghan, Buxton ; J. E. Scott, Newcastle-on-Tyne. Associates : G. W. Bird, Ripley ; A. E. W. Blissett, Clifton ; W. T. Mansfield, London ; J. J. Pratt, Hillingdon.

UNION HOSPITAL, PATRICROFT.—We are asked to mention that the large wards in this hospital, described in our last issue, are warmed and ventilated by Shorland's stoves with descending smoke flues, and by their exhaust roof ventilators.

NEWPORT, ISLE OF WIGHT, PARISH CHURCH.—The structural repairs of St. Thomas's Church, Newport, are about to be begun under the superintendence of Mr. J. B. Colson, of Winchester, at an estimated cost of about 3,000*l.* The former church was pulled down in 1854, and was replaced by the present fabric, for which the plans and designs of Daukes were selected in competition. The church, erected at a cost of 10,720*l.*, and having a capacity of 1,460 persons, comprises a nave with clearstory, side aisles, chapels, north and south porches, and a tower, and was built by Messrs. Dashwood, of Ryde, the carvings being by Baker, of Kennington. The style is Early Decorated, and for the materials were used Caen stone, and stone ashlar from Binstead, Quarr Abbey, and Swanage. In the church are monuments erected by Queen Victoria to the memory of the Prince Consort and (in the north chapel) of the Princess Elizabeth, daughter of Charles I, who died a prisoner in Carisbrooke Castle on September 8, 1650, and whose tomb in the church was discovered some fifty years ago, inscribed "E. S. ;" the two memorial monuments were designed and sculptured in marble by Baron Marochetti.

THE HOUSING OF THE WORKING CLASSES IN HACKNEY.—Dr. King-Warry, Medical Officer of Health for Hackney, has, in compliance with the request of the Hackney Borough Council, prepared a report on the question of the housing of the working classes in his district. Dr. King-Warry points out that there were, according to the last census returns, 48,130 tenement dwellings in Hackney, and in one case it was shown that as many as eleven persons occupied a single room. The number of persons afflicted by overcrowding in Hackney is estimated at about 24,000. He thinks the following causes have exercised the largest influence—(1) Inadequate building of workmen's dwellings ; (2) increased cost of building materials and labour leading to increased value of houses with corresponding rise in rent ; (3) the disposition of late years to invest money in house property ; and (4) the clearance of overcrowded and insanitary areas in other districts. Dr. King-Warry suggests that the difficulty might be met by the Borough Council's providing for the poorest part of the community a municipal lodging-house, to be under local control, and the price of accommodation to be fixed at the lowest figure sufficient to cover working expenses and a contribution to the sinking fund ; while for those persons who constitute the poor of the district the Council might (*a*) purchase and convert any suitable large houses in the borough into tenement dwellings ; (*b*) purchase land in the borough and erect suitable dwellings thereon at the cheapest possible rate ; and (*c*) purchase land in the suburbs outside the borough for the same purpose. The charge should not be more than 1s. 6d. to 2s. per room per week to attract the poor classes. The dwellings for the very poor should not exceed 1s. to 1s. 6d. per week.

HOUSING OF THE WORKING CLASSES. — It is stated that the Progressive Party of the London County Council are maturing a large housing scheme—one larger than that of Boundary-street. In a speech delivered by Lord Carrington at a Bethnal Green meeting he said : "We have a scheme in hand whereby, at an expenditure of a million and a half, which we anticipate will in no way fall on the rates, we shall accommodate 40,000 people in cottages—and these will be people of the very class whom we have been accused of neglecting, and for whom we have up to the present found it almost impossible to provide. This is in addition to another large cottage scheme at Tooting, to accommodate 8,500, and another at Norbury, in Croydon, for 5,800, and in addition to what the Council is doing to rehouse every person they are displacing."

MEDIÆVAL SCULPTURE.—At the London Institution, on Monday last, Mr. Arnold Mitchell delivered a lecture on mediæval sculpture. The subject is one of interest to architects, and also to the public, whose interest in architecture is usually confined to Gothic cathedrals and churches. By a series of lantern slides the lecturer showed the sculptor feeling his way from the rudest form of stone moulding to the perfect examples of figure sculpture, culminating in the sculptured façades of the cathedrals in Normandy and Picardy, where the sculpture is an essential part of the architectural design. England possesses many treasures of mediæval sculpture on a less impressive scale. The happy way in which the mediævals subordinated the size and proportions of their figures to emphasise the importance of the characters was productive of well filled-designs within the most awkward spandrel or tympanum. The delight of Gothic sculpture is not only due to its being an essential to the whole design, but in the directness of statement in each subject ; each tells its own tale, whether the subject be human or divine.

COMMONS AND FOOTPATHS PRESERVATION SOCIETY.—A meeting of the General Committee of this Society was held a few days ago at 1, Great College-street, Westminster, for the purpose of considering the report of the Society's solicitor on the provisions of Private Bills, now before Parliament, which propose to take power to interfere with commons, village greens, and open spaces. Mr. G. Shaw-Lefevre presided. Exception was taken to the provisions contained in the Bills promoted in connexion with the three "tube" railways, viz., the City and North-East Suburban Electric Railway, the North-East London Railway, and the Charing Cross, Euston, and Hampstead Railway (No. 1). The first-mentioned Bill will most seriously affect Hackney Marshes and Leyton Marshes, and, in a less degree, Victoria Park. The line is to be for the most part in tunnel, but where it crosses Hackney Marshes and Leyton Marshes—two exceptionally valuable open spaces—it will emerge from the tunnels and run on an embankment varying from 5ft. to 20ft. in height. Two short branch lines will also be erected on the surface of the Marshes, and altogether about twenty-five acres of common land will be abstracted. The North-East London Railway also seek powers to run a line on an embankment varying from 14ft. to 31ft. in height over Walthamstow and Leyton Marshes. It was considered by the Society that the construction of over two miles of high embankments on a much-used and highly valuable stretch of common land would practically destroy its utility as an open space and injure its amenity, and it was resolved vigorously to oppose the Bills, and also to support any objections which the Local Authorities and the London County Council might make. It was further resolved, if necessary, to co-operate with the local opposition to the Charing Cross, Euston, and Hampstead Railway Bill which proposes to take power to tunnel under Hampstead Heath. Instructions were given for making further inquiries with respect to the provisions of the Bills promoted by the Great Eastern, Great Northern, Central London, London, Brighton, and South Coast and the South-Western and Isle of Wight Railway Companies. Under these Bills parts of the following commons will be taken :—Shepherd's Bush Green, Tottenham Lammas lands, North Wootton Common, Norfolk ; Crimpsall Common, Doncaster ; Offord Common, Hunts ; Chase Green, Enfield ; Hurst Green, Oxted ; Maltby Far Common, Yorks ; and Croxley Green, Rickmansworth. It was also resolved to inquire into the provisions of the West Cumberland Electric Tramways Bill, under which a line will be constructed which will run for nearly twelve miles on common land. It was stated that 871 acres of commons would be acquired for the purposes of the Leeds Corporation Water Bill, and it was determined to press for the insertion of a clause giving the public the privilege of enjoying air, exercise, and recreation over the land. The Secretary stated that the Society was in communication with 150 Highway Authorities with respect to the insertion in Railway Bills of suitable clauses for the protection of footpaths and other rights of way.

DISCOVERY OF THE OLD ALD GATE OF THE CITY.—On the 18th inst. during the course of the operations for telephone work the workmen discovered a large portion of the foundations of old London wall, at the corner of Jewry-street, Aldgate, and Aldgate High-street. The part disclosed is believed to be a portion of the two towers of the old City gate, which, owing to its proximity to the Tower, was built at this spot more strongly than in other parts of the City.

ELECTRIC LIGHTING BOARDS.—This system of lighting, of which we have already spoken with approval for special situations, has been the subject of a special demonstration before the Czar of Russia, the Grand Dukes, and the Ministers of Finance and of the Interior. The Czar and the Grand Dukes personally manipulated the lights on the boards and examined everything relating to the invention, expressing considerable interest in the system and its various applications.

THE CEMENT TRADE.—Messrs. Tulloch & Co., in their annual report on the cement trade, state that throughout the greater portion of the year just closed the trade was in a far from prosperous condition. Over-production was a marked feature of the year, leading to the inevitable consequence of accumulated stocks and cutting competition. This condition has been present in all large centres of production. In Great Britain the feature of the year has been the formation of the Associated Portland Cement Manufacturers, Limited—a company taking over nearly all the chief works on the Thames and Medway, also certain inland mills. It is expected that this consolidation of the trade will assist in assimilating supply to demand, and contribute to maintaing prices at a remunerative level. During the year Belgian, and, in a lesser degree, German cements competed for British trade, about 110,000 tons having been sold in the United Kingdom. Export prices started with values ranging from 6s. to 6s. 6d., declining to as low as 5s. 9d., but steadying during the autumn to 6s. 3d. and 6s. 4d. Since the combine was established, no actual official announcement as to price has been made, but it is anticipated that rates will rule from 6s. 6d. to 6s. 9d. f.o.b. London for standard brands. Exports from the United Kingdom were 359,982 tons, showing a slight increase on 1899, but not sufficient to keep progress with the larger output. Exports to the United States have been well maintained, but chiefly owing to an improved demand from the Pacific Coast. Shipments to Canada showed a decided increase on previous seasons, due, no doubt, to the prevailing large amount of Government work. The remarkable growth in the cement industry of the United States of America is worth recording. To-day the American mills are producing, on a low estimate, fully 10,000,000 barrels yearly. New mills are springing up in every direction, and a large amount of capital is being sunk in this industry. Many produce only natural rock cements, scarcely suitable for reliable work ; but no doubt the ingenuity of the American cement makers will overcome in time the difficulties in manufacturing a uniform cement. At present it is apparent there is too little discrimination in the employment of American cements for high-grade construction.

HONORARIUM TO BECKENHAM SURVEYOR.—Beckenham Council have voted the Surveyor, Mr. Angell, an honorarium of 500 guineas for extra services in connexion with the electric light works, technical institute and baths, and other public works. It was stated that the institute and baths would be completed next month.

PROPOSED MUNICIPAL BUILDINGS, STOCKPORT. —On the 12th inst., at the Stockport Courthouse, Mr. F. H. Tulloch held a Local Government Board inquiry into an application by the Stockport Corporation for sanction to borrow 14,000*l.* for the purchase of a site for municipal buildings. It was stated that the site proposed to be purchased was in Wellington-road South, and was now occupied by the National Day and Sunday Schools. Evidence was given by Mr. John Atkinson, Borough Surveyor, and Mr. Peter Peirce, architect.

IRISH MINERALS AND STONES AT THE GLASGOW EXHIBITION.—The preparation for the exhibition of Irish industrial products at the Glasgow Exhibition, which the Department of Agriculture and Technical Instruction for Ireland have in hand, is, we understand, progressing most satisfactorily. In one respect, however, namely, exhibits of minerals and stones, the response to the Department's circular has not been commensurate with the extent and varied nature of these Irish resources. The Department, therefore, hope that their endeavours to bring Ireland's mineral resources to public notice will receive more adequate support. Great Britain requires large quantities of materials such as are enumerated in the list given below. Provided prices are quoted which will enable business to be

done, there is no reason why a portion of the trade at present going to the Continent should not come to Ireland. The owners of minerals and stones are now informed that the Department are prepared to receive offers of specimens of large possible output, under the following heads:—Lead, Copper, Iron, and Silver Ores; Hematite Coal, including Anthracite, Asbestos, Plumbago, Red Ochre, Yellow Ochre, Barytes, Banxite, Sulphur, Emery, Gypsum, Marbles, Granite, Limestone, Soapstone, Bathstone, Hones and Grindstones, Flags, Slates, Bricks, Tiles, Pottery Clay, Moulding Sand, Fire Clay, Rock Salt. Intending exhibitors are requested to adhere to the following regulations:—(1) The analysis of mixture to be arranged for by the proprietor of the deposit; (2) each specimen of polished marble and granite must be of uniform size, *i.e.*, 3 ft. high, 2 ft. wide, and not more than 1½ in. thickness, and, where possible, shown in rough and finished state; (3) each specimen of coal or ore must not be less than 1 cubic foot; (4) blocks of building stones to be about 1 foot cube, trimmed on one side. Bricks and slates to be of standard size. In all cases the following information must be attached:—Price free on board, nearest railway station, nearest seaport, estimated extent of quarry or mine, possible output per week. —*Freeman's Journal.*

CAPITAL AND LABOUR.

THE DISPUTE IN THE NORTHERN BUILDING TRADE.—The Board of Trade recently appointed Sir John Taylor, K.C.B., as arbitrator in the Newcastle, Gateshead, and district building trade dispute. Sir John sat on the 13th inst. and the previous day at the Station Hotel, Newcastle, to hear representations from the executives of the employers (Northern Centre) and of the London Order of Operative Bricklayers. He has decided that wages shall remain as at present. The men asked for an advance from 10d. to 11d. per hour. Tenpence is the highest wage in the country except in London, where the payment is now 10½d. The Newcastle bricklayers have been on strike since June, and in other towns men have been out since November.

MASONS' WAGES, BROUGHTY FERRY, FORFAR.—The master masons and their employes at Broughty Ferry have mutually agreed to a reduction of ½d. per hour in wages.

EMPLOYMENT IN THE BUILDING TRADES DURING JANUARY.—According to the *Labour Gazette*, employment in all branches of the building trades has continued to decline. The percentage of unemployed union members among carpenters and plumbers at the end of January was 4·7, compared with 4·2 per cent. in December, and 2·7 per cent. a year ago. The *Gazette's* London report is as follows:—"The building trades are quiet in all branches. Returns from 188 branches of eight unions paying unemployed benefits, with a membership of 13,716, show that 697 (or 5·1 per cent.) were unemployed, compared with 3·8 in December and 1·3 per cent. in January, 1900. The stonecarvers describe employment as quiet; the bricklayers, stonemasons, carpenters and joiners, and painters and decorators as dull, though the latter are improving; the plasterers and plumbers as bad." Five disputes commenced during January, four being in England and one in Scotland. Together they affected 1,394 workpeople. The English disputes were all in regard to wages. Only one has been settled. The Scotch dispute, which was at Glasgow, where 1,000 carpenters and joiners came out on strike because of a proposed reduction in wages, has not yet been settled.

DUNDEE MASONS' WAGES.—The dispute between the Dundee master and operative masons over the wages question, which threatened to develop into a strike, has been settled. Some time ago the Employers' Association issued a notice to the men that wages would be reduced by a penny per hour on February 16. The men opposed the proposed reduction, and threatened to strike rather than submit to it, and the employers expressed their determination to insist on their decision being carried out. Several attempts were made to arrange matters, without any satisfactory result. As, however, the date of the notice approached both parties were averse to the stoppage of work. Accordingly, as the outcome of further communications, it was agreed that wages should be reduced by one halfpenny per hour.

LEGAL.

IMPORTANT POINT UNDER THE LONDON BUILDING ACT, 1894.

THE case of Hull *v.* the London County Council came before a Divisional Court of King's Bench, composed of Justices Bruce and Phillimore, on the 16th inst., for judgment on an appeal by way of special case by Mr. Hull, from a decision of the Metropolitan Magistrate sitting at Clerkenwell, convicting him under an information preferred on behalf of the respondents, the London County Council, charging the appellant with unlawfully extending a projection at No. 209, Seven Sisters-road, Islington, beyond the general line of buildings of Seven Sisters-road and Campbell-road, Islington, without the permission of the Council, contrary to Section 73 (8) of the London Building Act, 1894. At the hearing before the magistrate the following material facts were proved:—On June 9, 1899, the appellant let to Mr. S. H. Benson, an advertising agent, under a written agreement, a position covering the first floor window at the corner of the premises for the purpose of erecting thereon an electric or other advertising sign. The tenancy was to commence as soon as the sign was let, but in any case not later than June 24, 1899, and was to be for the term of one year, with the option of renewal for a period of not less than two years, at a yearly rental of 20*l.* This agreement was entered into by Mr. Benson, on behalf of Messrs. Frederick King & Co., the proprietors of "Edwards's Desiccated Soup," which was the subject matter of the advertisement. Between June 13 and 20, 1899, the Electric Sign and General Advertising Company, Limited, put up for King & Co. an electric advertisement sign over the front of the appellant's premises, in the position mentioned in the agreement. The sign was commenced to be put up on June 13, 1899, and was completely affixed to the external wall of the premises on June 20, 1899. It consisted of a wooden case with a glass front, the case being attached to the external wall of the premises by iron brackets, a space of 6 in. intervening between the back of the case and the wall, and a portion of the apparatus working the sign being within the room on the first floor. The sign measured 10 ft. 6 in. in height by 7 ft. in breadth, and was placed immediately over the cornice of the shop-front, and including the iron brackets, projected only 16 in. beyond the external wall of the premises. The cornice of the shop front, which was below the sign, projected 20 in. beyond the external wall of the premises, so that the sign projected 4 in. less than the existing projection of the cornice. The sign did not project over the highway. On March 16, 1900, the appellant received notice requiring him to comply with the law, and on May 17, 1900, the information was preferred, charging that the offence was committed on or about December 19, 1899, the date on which it was brought to the attention of the Council. On June 2, 1900, the Superintending Architect of Metropolitan Buildings gave his certificate defining the general line of buildings of the premises as being the main fronts of the buildings on the eastern side of Campbell-road and on the northern side of Seven Sisters-road respectively. On behalf of the appellant it was contended that the information was invalid, inasmuch as it was not laid within six calendar months from the time when the matter arose; that the offence (if any) was complete, and the matter of the information arose on June 20, 1899, the date on which the sign was completely affixed to the premises; that the alleged offence was not a continuing offence and was wrongly stated in the information to have been committed on or about December 19, 1899; that the sign was not a projection within the meaning of Section 73 (8) of the London Building Act, 1894, inasmuch as the sign did not extend beyond the existing projection of the shop cornice and did not extend over the highway; and that the appellant was not liable or a proper defendant to the information, inasmuch as by the agreement he had demised the part of the premises on which the sign was affixed and had no power to control or alter the position of the sign without trespassing on the property of his tenant or to remedy the alleged breach of the Section. On behalf of the respondents it was contended that the offence was a continuing offence, that the sign was a projection, and that the appellant was liable notwithstanding the agreement. The learned magistrate found, as a fact, that the sign did project beyond the general line of buildings in the streets as defined by the Superintending Architect and that the offence was a continuing offence. Hence the present appeal of Mr. Hull.

Their Lordships' allowed the appeal on the ground that the sign did not constitute a projection within the meaning of Section 73, Sub-Section 8, of the London Building Act, 1894, and further that the prosecution of alleged offence was barred by lapse of time under Section 11 of the Summary Jurisdiction Act, 1848. As to the third point they thought that if the sign had been a projection within the meaning of the London Building Act, 1894, the appellant could not have escaped liability on the alleged ground that he had no power to control or alter the position of the sign without trespass.

The magistrate's decision was therefore reversed and the appellant awarded the costs of the appeal.

Mr. Macmorran, K.C., and Mr. Kenrick appeared for the appellant, and Mr. Avory, K.C., for the respondents.

THE LONDON BUILDING ACT:

BUILDINGS USED PARTLY FOR TRADE AND PARTLY AS DWELLINGS.

MR. JOHN ROSE, the magistrate sitting at the West London Police-court, had before him on the 7th inst., and, by adjournment, on the 9th inst., an appeal of Messrs. Dolman & Co., builders, against a notice of objection served on them by the District Surveyor for North Fulham, Mr. F. W. Hamilton, under Section 150 of the London Building Act, 1894.

The proposed premises, 181 and 183, North End-road, Fulham, which were the subject of the notice, will be two separate buildings, identical in plan, on sites with narrow frontages but considerable depth, fronting on North End-road, and having each a flank abutting on a narrow street or passage at the side, with entrances for the dwelling-house portions from these side streets.

According to the plans the front portion of each building on the ground floor formed a shop (with basement under shop only), and in rear of the shop, on ground floor, were certain small rooms, with a staircase between the shop and the rooms in rear, which staircase extended to the basement. The upper portions of the premises, consisting in each case of first and second floors, were adapted for subletting as flats on each floor, or in conjunction with the shops as desired.

The grounds of the objection were that Messrs. Dolman & Co., being about to erect the said premises, which were each over ten squares, and were to be used in part for the purposes of trade and in part as a dwelling-house, had not made provision for constructing the staircase leading to the dwelling-house part of fire-resisting materials in accordance with the provision of Section 74 (2) of the Act. The grounds of the appeal against the notice of objection were that the shop was separated from the dwelling-house part by walls and floors of fire-resisting materials in accordance with the provisions of Section 74 (2), and that the staircase in question was situate in the dwelling-house part of the premises, and therefore need not be made of fire-resisting materials.

Mr. T. Blanco White, solicitor, appeared on behalf of the appellants, and Mr. D. Palmer Andrews, of the Solicitors' Department of the London County Council, appeared on behalf of the District Surveyor in support of the notice of objection.

Mr. T. Woodbridge Biggs, the architect for the building, gave evidence in support of the appeal, and on cross-examination admitted that the openings in the wall separating the shop from the passage and staircase, which openings were to be fitted with fire-resisting doors, and the adjoining passage, would form a means of access to the cellar, which was constructed to be let with the shop. It was further admitted that the staircase was the means of access to the upper portion of the building, which would be occupied as dwelling-house.

After considerable argument, the magistrate held that the passages and staircases were approaches to the parts used as dwelling-houses within the meaning of Section 74 (2), and dismissed the appeal, upholding the District Surveyor's notice of objection, and awarded the District Surveyor two guineas for costs.

At the commencement of the proceedings, Mr. Andrews, on behalf of the District Surveyor, took exception to the mode of bringing the appeal before the magistrates, the appellants having proceeded by way of summons against the District Surveyor, and he pointed out that it had been settled in previous cases that the proper method is not to issue a summons, but for the appellant to obtain an appointment from the magistrate for the hearing of the appeal, and to give notice in writing of such appointment to the District Surveyor.

WORKMEN'S COMPENSATION ACT:

AN IMPORTANT JUDGMENT.

A JUDGMENT of considerable importance was given by Deputy Judge Clement Lloyd, on Monday, at Brompton County Court. The applicant in the action, which had been brought under the Workmen's Compensation Act, was a Mrs. Alice Knight, widow, 1, New-street, Upper Mall, Hammersmith, W., and she, on behalf of herself and four children, sought to recover compensation from Messrs. Cubitt & Co., builders and contractors, 258, Gray's Inn-road, W.C., the claim being in respect of an accident met with by her late husband while—it was said—in the employ of the respondents. Mr. H. Clements, house demolisher, Montgomerie-street, Hammersmith, had been joined as third party to the application. Mr. J. Brown, counsel, appeared for the applicant, and Mr. Minton-Senhouse, counsel, for the respondent firm.

The judgment ran as follows:—

It appeared that the respondents, who were a well-known firm of builders, entered into a building agreement with Messrs. Woolland Brothers, drapers, &c. Knightsbridge, whereby they agreed to demolish and reconstruct two houses—16 and 17, William-street, Knightsbridge. In accordance with what was stated to be their invariable practice, the respondents did not proceed with the work of demolition themselves, but sub-let it to a housebreaker named Clements, who had now been brought into the proceedings as a third party. Before the work of demolition commenced, both houses in question exceeded 30 ft. in height. The workman, Knight—late husband of the present applicant—was employed by Clements in pulling-down house No. 17, and on August 1 last, while so employed, met with an accident which subsequently proved fatal. At the time of the accident, the part of the building upon which Knight was working was reduced to a height of 11 or 12 ft. above

the street, but a party wall between the two houses was intact. Previously to the accident Knight had been employed in the work of demolition for five and a-half days, at the rate of 35s. a week. No evidence was tendered at the hearing as to the height of the building at the commencement of his employment.

Mr. Minton-Senhouse, on behalf of the respondents —continued the judgment—contended, in the first place, that No. 17 was not, at the time of the accident, a building within the meaning of the Act, as the part which was in course of demolition, and on which Knight was working, did not exceed 30 ft. in height, and in support of this contention he relied on the case of Billings *v.* Ulloway, 1899, 1 Q.B., 70, where it was held that a building in course of erection, and not exceeding 30 ft. in height, but was intended to exceed that height, was not within the Act. His Honour, however, did not think that the converse necessarily applied, as whatever the height of the building at the time of the accident, a building of the required height was in course of demolition, whilst in the case relied on, the building in question had not, and might never have reached that height. In the present case, moreover, the party wall, which certainly was part of the building, was intact, a fact which, in his Honour's opinion, further distinguished it from Billings *v.* Ulloway, and clearly brought it within the Act.

The case of Rexivin *v.* Pritchard, 1900, 1 Q.B., 800, was also cited, but his Honour did not think that this had any application to the present case.

On behalf of the respondents a further point was taken, namely, that they were not "undertakers" within the meaning of the Act, as the work sub-let by them to Clements was merely auxiliary to the business carried on by the respondents. The learned counsel had referred to Pearce *v.* London and South Western Railway Company, 1900, 2 Q.B., 100, but his Honour could not agree with this contention, as the respondents' agreement with Messrs. Woolland Bros. was both to demolish and to reconstruct, and they sub-let the former part of the undertaking to Clements, who thus became a sub-contractor for the execution of the work which, if executed by workmen immediately employed by respondents, would have rendered them liable to pay compensation under the Act to those workmen in respect of any accident arising out of, or in the course of, their employment.

His Honor thought, however, that the respondents were entitled to be indemnified by Clements, as coming within the proviso contained in Section 4 of the Act.

With regard to the amount of the award, in the event of the award being in favour of the applicant, it was contended by Mr. Minton-Senhouse that, having regard to the fact that Knight had only been employed for five and a-half days, his average weekly earnings were not 35s. a week, but only half that sum; in other words, that the 35s. must be spread over two weeks before an average could be struck. His Honor, however, was unable to agree with this contention, and he thought that, according to the provisions in Schedule 1 of the Act, the man's average weekly earnings should be taken at 35s a week.

His Honour, therefore, assessed the amount of the compensation to be paid by the respondents at 27*3l.*, and awarded that sum to the applicant, with costs. The 27*3l.* was to be apportioned as follows: 100*l.* to be paid to the applicant, and the remaining 17*3l.* to be divided amongst the four children, the money to be deposited in the Post Office Savings Bank by the Registrar, and interest paid to the applicant, with liberty to apply.

The Judge now ordered that the amount of the award should be paid into court within a fortnight, and that if notice of appeal were not given within twenty-one days, the money should be paid out to the applicant.

CONSTRUCTION OF DISTRICT COUNCIL BY-LAW.

AT Brentford Police-court on Monday, Mr. F. W. Smith, of Shirley-gardens, Hanwell, was sued by the District Council for Hanwell for having contravened the by-laws by neglecting to give notice of the completion of Nos. 28 and 30, Shirley-gardens.

Mr. T. A. Woodbridge appeared for the Council and Mr. W. Hook defended.

Mr. Woodbridge said that the proceedings were taken under the 97th By-Law, which required "that every person who shall erect a building shall within reasonable time after completion deliver or send to the Surveyor notice in writing of the completion, and shall within seven days thereafter and at all reasonable times before such building is occupied, allow the Surveyor access for the purposes of inspection. On October 28 the Surveyor, on going to the houses, found them occupied. He also found that the drainage was not completed, inasmuch as it was contrary to the by-laws, there being no separate system for storm-water.

Mr. Sidney Barnes, the surveyor, having borne out this statement in evidence, in cross-examination said that he did not consider the buildings finished, as the sewage was not in order. He admitted receiving on October 16 a letter from defendant to the effect that he was not the builder, but had a contract with the builder, who was responsible. As the builder had not given notice, he would do so then and there. The drainage was laid two years ago, and the houses remained as carcases for some time until defendant bought them. He had seen defendant's men at work on the houses, and his foreman lived in one. He had seen the defendant on the land adjoining. He could not swear that two houses were finished in July, but he could not say if anything was done to them after that date.

Mr. Hook submitted that there was no case. The defendant was specifically summoned for not giving notice of completion, but the Surveyor had sworn that the houses were not completed, and until they were there could be no offence, since the notice was not necessary. Assuming, however, the houses were completed, there was no definition of "reasonable time" upon which the Court could act, and it was incumbent that the District Council should show when the completion took place in view of the time limits of the Act. He should show, if necessary, that they were finished in July, and therefore these proceedings were barred by time, the summonses having been issued after six months had expired. The Surveyor, however, admitted having had a notice in October, and though it might have been late, it was given three months before the Council took these proceedings.

The Chairman: But it must be given before the house is occupied.

Mr. Hook denied that that point entered into the case. Nothing was said in the by-laws about notice being given before occupation. He urged as a further point that the defendant was not "the person erecting the building." He was the owner of the land, but he had entrusted the building to a Mr. Hands.

The Chairman: Surely he was the person who erects. He causes the building even if he does not lay the bricks.

Mr. Hook said the words of the by-law must be interpreted strictly. In the criminal law a man could not be shot at through his agent. If that were so a gentleman who instructed a builder to erect a mansion might in absolute ignorance be liable for an offence through an omission of the builder.

The Chairman said the Court were of opinion that the District Council had been to blame for not keeping a better look out on these carcases. But taking it that they were finished in July, there was unreasonable delay before the giving of the notice in October, and for that the defendant was liable. The Court found that having regard to the evidence that the defendant was seen about the buildings and at work next door, that he was in law the person responsible to give the notice, and they also found he was in default in letting the houses before the Surveyor could inspect them. He would be fined 4*l.* and costs.

Mr. Hook asked for a case, which the Court granted.

BREACHES OF BUILDING BY-LAWS AT HALIFAX.

ON the 12th inst., at the Halifax Borough Court, before Mr. J. T. Riley and other Justices, Wilkinson Pickles, Gads Hill, a member of the Halifax School Board, was summoned by the Halifax Corporation for allowing houses to be tenanted before the same had been certified by the Borough Surveyor as being fit for habitation. Mr. F. M. Tordoff appeared for the prosecution, and stated that the defendant was owner of a block of five houses at Rhonddaplace, Mile Cross. The Borough Surveyor received notice from the defendant on December 4 that the houses were completed. Two days later an inspector went to the buildings, and as he found them to be defective in certain parts a notice was served upon the defendant on December 8 calling upon him to carry out some requirements, such as channelling, providing fall pipes, &c. Before these alterations were made, and before the houses had been certified as "fit," three dwellings became tenanted. The provision of fall pipes had not yet been made. Mr. J. R. Farrar appeared for Mr. Pickles, and stated that he had not intentionally broken the law. He gave orders for the works required to be done, and thought they had been completed. A fine of 5s. and 8s. 6d. costs was imposed.——Harry Aspinall, of Mount Tabor, owner of the Shoulder of Mutton Inn at that place, was summoned on a similar charge. Notice of the completion of the new building was received at the Town Hall on January 2, and when the inspector went to look at the premises he found them occupied. The defendant stated that he was under the impression that his getting leave to build the premises was all he required. A fine of 5s. and 8s. 6d. costs was imposed. The chairman stated that future offenders would be more severely dealt with.

CAB PROPRIETOR AND ARCHITECT.

AT Newcastle County Court recently the case in which Mr. J. C. Parsons, architect, sued Mr. Edwin Gowan, cab proprietor, Heaton, for 37*l.* 10s., the cost of preparing plans, four years ago, for the erection of a proposed livery stable at Heaton, was concluded.

The defence was that according to an arrangement made there was to be no payment in consequence of the plans having failed to pass the Town Improvement Committee.

His Honour, in giving judgment, said the defendant had put it forward that there was an express undertaking that unless the plans were passed by the Corporation and the work went on plaintiff was to get nothing for the preparation of the plans. He was asked to believe and credit this story because defendant had been bitten once before, and had been compelled to pay for an architect's services without receiving anything in return. It was perfectly true that for about three years no claim was made, and during that time, apparently, attempts were being made to induce the Corporation to pass the plans. But ultimately the account was sent in to defendant, who, for some months took no notice of the letters of Mr. Parsons. Then, on September 9th, 1900, he wrote asking for a detailed account, as it wanted looking into. He (the Judge) could not agree that that was the natural reply for an unprofessional man to make in such a case. The simple reply, one would have supposed, under the circumstances, would have been, "I owe you nothing." Judgment must be given for plaintiff for the amount claimed with costs.

RECENT PATENTS:

ABSTRACTS OF PATENTED INVENTIONS.

20,901.—A CONTRIVANCE FOR WINDOWS: *D. Oldham.*—In order that the sashes may be turned inwards for purposes of ventilation and be readily removed in case of fire, &c., the pivots of the sashes are made to fit within slotted socket-plates secured to the frame; to afford weather-tight joints, rounded beads and grooves are made upon the rails, the lower corners of the sash stiles being cut away so as to clear the outside beams of the frame; sliding bolts fasten the sashes when they are closed, when they are opened they are secured with stay cords or with bolts that will enter into holes cut in quadrant-arms, and to prevent the sashes from becoming detached before they have been turned to an extent already determined they are fitted with stop-blocks which press against curved guides.

20,929-30.—BRICKS AND SIMILAR BUILDING BLOCKS: *G. De Bruyn.*—The brick or block is fashioned in two portions that will interlock with one another, and to render the block non-conducting of heat, a layer of asphalt, asphalt paper, &c., is placed between its two parts. For affording a support or key for plaster the surfaces of the bricks are roughened by the forcing into them, when in a plastic condition, of bits of stone or some such hard substance.

20,936.—A COMPOSITE MATERIAL FOR BUILDERS' USE: *A. Metz.*—A material for slabs, panels, cornices, and other ornamentations is made by mixing a ceramic setting paste composed of pulverised calcined Mandoudi stone, 4 parts; powdered baryta, 4 parts; pulverised baked clay, 2 parts; crushed sandstone, 1 part; and sodium silicate in solution; the moulded articles are hardened at a temperature ranging from 300 deg. to 500 deg. C., that their outer surfaces may be fused; for producing perforations and undercut, plain, or other recesses, incombustible plugs made of prepared wood, cork, metal, papier-mâché, and so on are inserted into the paste when it is in the moulds.

20,996.—A MITERING-GUIDE: *A. Macfarlane and A. Jones.*—The inventors seek to facilitate the angular adjustment of the saw-guide; they make it of a disc which they pivot on to a bracket that extends from the guide for the moulding, &c., and they line with suitable material the faces of arms that project upwards from the disc for contact with the saw; the disc is to be retained at the desired angle by means of a spring plunger that fits into a set of radial holes cut in the edge of the disc at convenient angles.

21,086.—GAS BURNERS: *P. Nöel.*—The burner, which is adapted for incandescent heating and lighting, has an air and gas mixing chamber, of which the size can be altered, and air-orifices which can be correspondingly varied with changes in the pressure of the gas; the upper portion comprises a larger mixing-chamber and a smaller part in which moves the upper end of a hollow screwed stem in the form of a piston. When the piston is screwed up and down the consequent rise or fall of a sleeve increases or lessens the cross-section of air-inlets which are made in the stem around the gas-inlet—the stem working in a nut to which the sleeve is attached.

21,139.—GAS BLOWPIPES: *F. Speidel.*—The inventor's object is to afford means of regulating the gas supply together with a pilot igniting-jet; a spring piston valve is inserted in the supply branch so as, under normal conditions, to cut off the supply of gas, but gas will flow through an inner pipe to the nozzle of the blowpipe whenever the valve is forced inwards, and a pilot flame which is fed with a small branch pipe will thereupon ignite the gas at the nozzle; a bent rod, clamped with a jet-screw, serves to retain the valve in an opened position.

21,173.—MACHINERY FOR CUTTING WOOD: *G. Pickles and J. T. Pickles.*—The invention relates to the balancing of the cranks which are employed to drive reciprocating saws and other similar wood-cutting machines; that result is provided for by the attachment of balancing weights opposite the webs or by fashioning extensions upon the webs themselves.

21,205.—SPANNERS: *F. Kettler.*—In order that the stem of the upper jaw shall slide without turning in the lower jaw it is shaped with an oblong section, its edges also are threaded for engagement with corresponding threads upon the rounded bore of the handle of the tool which is swivelled on to the lower jaw and is pierced with an aperture for the insertion of a lubricant.

21,211.—STONE-SAWING MACHINERY: *T. Pawson.*—Balance weights are mounted upon extensions, that project above the shaft of the rods from which the frame of the saw is hung. The weights may be carried with a girder-and-bracket arrangement, and further tapered weights can be inserted into recesses which are cut in them.

21,214.—HANDLES FOR FILES AND OTHER TOOLS: *L. Grole.*—The handle consists of a piece of reed cane, which is wrapped within a casing of paper, or some similar envelope, and is then put into the bored-out end of the wooden haft. A hole in the cane takes the tang of the file, &c., and the paper wrapping is wound around and cemented upon the cane. In another shape, the haft is shapened out of the paper envelope around the reed cane.

21,220.—A COMPOSITION FOR THE TREATMENT OF WOOD: *F. Gibbs.*—The compound is devised for use as a filling for the preparation of wooden surfaces that are to be polished. It consists of an admixture of shellac that has been macerated in methylated spirit, ground alum, linseed oil, pumice powder, whitening, and plaster of Paris.

21,230.—COUPLINGS FOR PIPES: *C. A. Bailey.*—The coupling, which is intended more particularly for pipes of soft metal, is formed by means of an internally screw-threaded collar which can be screwed on to a pipe-end, the thread having narrow ridges and a sharpened end in order that it may cut into the softer metal. In a variant form a tapered bore is adapted to the collar, the pipe being expanded when the collar has been screwed on to it.

21,245.—WEIGHING APPARATUS, AND HYDROSTATICAL APPLIANCES: *T. Fenn.*—The beam from which the platform-carrying rod hangs is suspended from a hand-lever that bears against the frame and carries another beam upon which is a hook for engagement with the hand-lever. Weights that slide upon the beams are graduated to, it may be, stones and cwts. At the ends of the beams are vessels, filled with liquid, and carried by arms to which are attached pointers that will indicate respectively fractions of the units of weight, fixed plungers are disposed within the vessels which may however, be arranged above the beams—in that case the hand-lever will not be needed.

21,256.—A FIRE-ESCAPE: *F. J. Glaser.*—For the lowering of a rope ladder out of a window is devised a frame mounted upon castors, which is supported at its top by a bar that is laid against the sides of the window, in the frame is mounted an axis upon which are pulleys, on to which the sides of the rope ladder are wound; the ladder is passed over guide-pulleys mounted at the end of a hinged frame, which can be folded up when it is not required for use; the descent of the ladder is checked with a brake lever and wheel attached to the axis.

21,260.—WOOD-SCREWS, SCREWED SHANKS OF HOOKS, &C.: *F. W. Caldwell.*—On the tapered shanks are fashioned highly pitched threads, of which the upper faces are steep and the lower faces are flat and inclined to a degree that will provide for the sharp cutting edge being that part of the thread which shall first enter into the fibres of the wood; to obviate the necessity of boring a hole before the screw or hook-shank is put into the wood, the threads are made with sharp wings that project from their ends; the screws can be driven with blows by a hammer.

21,261.—PIPE-WRENCHES: *T. E. Ryan.*—A separated piece, which is firmly seated upon the end of the shank, and is secured with a pin passed through a socket in the shank and a lug upon the jaw, constitutes the fixed jaw of the wrench. A bar having a set of lugs arranged parallel to one another and engaging with recesses cut in the shank holds the pin which joins the hinged jaw to the shank in any one of a line of notches, and another pin is passed through the shank and the lugs; a pivoted catch holds the other end of the bar.

21,296.—BRICKS FOR VENTILATION: *H. W. Roberts.*—A contracted overhung inlet aperture is made through the brick by forming the brick in two parts, of which the side, top, and bottom surfaces are sloped. In the inner side of the wall is constructed a recess into which a detachable box of metal is to be inserted. The box has an opening and a baffling plate, which is joined with four rods to the back of the box.

21,303.—A TOP FOR CHIMNEYS: *W. S. Shreeve.*—The inventor has contrived a chimney-top that presents a tier of cones, two or more in number, and open, above which he puts a raised cap, which is cone-shaped and is inverted; a clamping-ring is used for fastening the lowest open cone of the tier on to a plain pipe or chimney-pot.

MEETINGS.

FRIDAY, FEBRUARY 22.

Architectural Association Discussion Section.—Mr. F. J. Osborne Smith on "Domestic Heating, Ventilation, and Lighting." 7 p.m.

Royal Institution.—Sir W. Roberts-Austen on "Metals as Fuel." 9 p.m.

Institution of Civil Engineers (Students' Meeting).—Mr. J. L. Cridlan on "Automatic Coupling." 8 p.m.

Sanitary Institute (Lectures for Sanitary Officers).—Dr. J. Priestley, M.D., on "Duties of a Sanitary Inspector. Offensive Trades and Trade Nuisances. 8 p.m.

Glasgow Architectural Craftsmen's Society. — Mr. J. G. Dunn on "The Practice of Chimney Building and Boiler Setting." 8 p.m.

Institution of Mechanical Engineers.—Adjourned discussion on Mr. J. Ashford's paper on "Light Lathes and Screw Machines." 8 p.m.

SATURDAY, FEBRUARY 23.

Royal Institution.—Right Hon. Lord Rayleigh, M.A., on "Sound and Vibration." I. 3 p.m.

Sanitary Institute (Demonstrations for Sanitary Officers).—Inspection at Friern Barnet Sewage Works. 3 p.m.

Builders' Foremen and Clerks of Works' Institution.—Annual dinner, King's Hall, Holborn Restaurant. 6 p.m.

Institution of Junior Engineers.—Visit to the Willesden Station of the Metropolitan Electric Supply Company. 2.30 p.m.

Edinburgh Architectural Association. — Visit to Bruntsfield House and St. Oswald's Church.

Dundee Institute of Architecture.—Visit to General Accident Assurance Buildings, Perth.

MONDAY, FEBRUARY 25.

Royal Institute of British Architects.—(1) Address to Students, by the President, Mr. Wm. Emerson; (2) A Criticism of the Designs and Drawings submitted for the Prizes and Studentships 1900-1901, by Mr. J. Alfred Gotch, F.S.A. (3) Presentation of Prizes. 8 p.m.

Surveyors' Institution. — Mr. Thomas Blashill on "The Present Condition of the Building Industry." 8 p.m.

TUESDAY, FEBRUARY 26.

Institution of Civil Engineers.—Mr. W. H. Stanger and Mr. Bertram Blount on "The Rotatory Process of Cement Manufacture." 8 p.m.

WEDNESDAY, FEBRUARY 27.

Society of Arts.—Dr. W. Schlich, C.I.E., on "The Outlook for the World's Timber Supply." 8 p.m.

City of London College Science Society.—Mr. C. W. Gamble on "Tricolour Photography," with Illustrations, &c.

Sanitary Institute (Lectures for Sanitary Inspectors).—Dr. H. R. Kenwood on "Methods of Disinfection." 8 p.m.

St. Paul's Ecclesiological Society.—A paper entitled "Notes on the Brasses of Kent, Part I., Ecclesiastical and Military," will be read by Mr. Mill Stephenson, F.S.A. 7.30 p.m.

Institution of Electrical Engineers (Birmingham Local Section).—Inaugural meeting in the University Buildings, Edmund-street. Dr. Oliver Lodge, Chairman of the section, will deliver an inaugural address, and the President of the Institution, Professor John Perry, will be present. 8 p.m.

Institution of Civil Engineers.—Students' visit to the Electrical Works of the London United Tramways, Limited, Chiswick. Assemble at the works, 88, High-road, Chiswick. Train from Westminster Bridge to Turnham Green Station, 1.52 p.m.

Edinburgh Architectural Society.—Mr. W. A. Agnew on "Electric Power in Buildings," illustrated with limelight views.

Northern Architectural Association.—Mr. A. P. B. Barker, B.A., on "Legal Topics of Interest to Architects and Surveyors." 7.30 p.m.

THURSDAY, FEBRUARY 28.

Carpenters' Hall, London Wall (Free lectures on matters connected with building).—Mr. H. C. Richards, K.C., M.P., on 'Old London." 8 p.m.

Society for the Encouragement of the Fine Arts.—Mr. F. H. Evans on "Architectural Details from Southwell Minster." Limelight illustrations. 8 p.m.

Royal Institution.—Professor Percy Gardner, F.S.A., on "Greek and Roman Portrait Sculpture." Lantern slides. I. 3 p.m.

Institution of Electrical Engineers (Inst. of Civil Engineers). — If the discussion on Mr. Madgen's paper is concluded, the following paper will be read: "Cables," by Mr. O'Gorman. 8 p.m.

FRIDAY, MARCH 1.

Architectural Association.—Mr. E. W. M. Wonnacott on "The Paris Exhibition, 1900." 7.30 p.m.

Royal Institution.—Mr. H. H. Cunynghame, C.B., on "Enamels." 9 p.m.

Sanitary Institute (Lectures for Sanitary Officers).—Dr. H. R. Kenwood on "Water: Composition, Pollution, and Purification." 8 p.m.

Institution of Junior Engineers (Westminster Palace Hotel).—Paper on "Carburetted Water Gas," by Mr. Samuel Cutler, Jun. 8 p.m.

SATURDAY, MARCH 2.

Royal Institution.—The Right Hon. Lord Rayleigh, M.A., on "Sound and Vibrations." II. 3 p.m.

British Institute of Certified Carpenters (Carpenters' Hall, E.C.).—Mr. W. H. Betambeau on "Wood Beams: their Properties and Design." Professor R. Elsey Smith, Vice-President, will take the chair. 6 p.m.

Memorial Hall, Farringdon-street, E.C.—Monthly meeting at 7.30 p.m.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

February 6.—By CHRYSTAL BROS. (at Ramsey).

Ramsay, Isle of Man.—Auckland-lane, a freehold cottage £120
Tower-st., a block of buildings, offices, stables, &c., f. 600
Andreas, Isle of Man.—A house and shop, and cottage, f. 400
Bride, Isle of Man.—House, workshop, and 2 a., f. 211
Ballaugh, Isle of Man.—A freehold field 285
Manghold, Isle of Man.—The Estate of Ballaskeg, 185 a., f. 3,600

By NEWBON, EDWARDS, & SHEPHARD.

Holloway.—60 and 68, Langdon-rd., u.t. 97 yrs., g.r. 16*l.* 650
62, Langdon-rd., u.t. 69½ yrs., g.r. 6*l.* 10s. £330
Croydon.—166 and 168, London-rd., u.t. 65 yrs., g.r. 10*l.*, r. 80*l.* 745
Bayswater.—47, Pembridge-rd., u.t. 50 yrs., g.r. 7*l.*, r. 55*l.* 510

By E. SIMPSON.

New Cross.—6, Kitto-rd., u.t. 63 yrs., g.r. 6*l.* 6s., r. 38*l.* 395

February 8.—By PERKINS & CÆSAR.

Bermondsey.—226 and 228, Southwark Park-rd., u.t. 29 yrs., g.r. 12*l.* 4s., r. 116*l.* 1,325
Peckham.—43, Sumner-rd., u.t. 63 yrs., g.r. 6*l.*, r. 39*l.* 270

February 11.—By JENKINS & SONS (at New Cross).

Brockley.—27, 29, and 35, Sprules-rd., u.t. 74 yrs., g.r. 17*l.* 10s., r. 96*l.* 995
161 and 163, Brockley-rd., u.t. 64½ yrs., g.r. 6*l.*, r. 58*l.* 720
28 and 54, Endwell-rd., u.t. 74 yrs., g.r. 10*l.* 9s. 6d., r. 70*l.* 680
Deptford.—159, Church-st., f., r. 26*l.* 315
32 and 34, Watergate-st., f. 385

February 12.—By H. J. BROMLEY.

Forest Hill.—Wastdale-rd., perpetual g.r.'s of 20s. 400
Westbourne-rd., l.g.r. 6*l.*, u.t. 59½ yrs. 110
8 and 9, Manor-rd., f., r. 125*l.* 1,410
82, 84, and 86, Devonshire-rd., u.t. 63¼ yrs., g.r. 18*l.*, r. 95*l.* 685
13, 14, 15, 16, and 17, Rojack-rd., u.t. 55½ yrs., g.r. 15*l.* 885

By COCKETT & HENDERSON.

Leyton.—149 to 165 (odd), Sidmouth-rd., u.t. 79¼ yrs., g.r. 27*l.* 860
Sydenham.—17, Watlington-grove, u.t. 65½ yrs., g.r. 3*l.* 10s. 125

By J. S. RICHARDSON.

Islington.—7 and 9, Mary-st., u.t. 26½ yrs., g.r. 8*l.* 8s., r. 64*l.* 525

By ROGERS, CHAPMAN, & THOMAS.

Chelsea.—14, Edith-grove, f., e.r. 85*l.* 1,000
Brompton.—125, Finborough-rd., u.t. 60 yrs., g.r. 9*l.*, e.r. 55*l.* 410

By SEDGWICK, SON, & WEALL (at Watford).

Watford, Herts.—Clarendon-rd., Duddenhill, f... 2,300
King's Langley, Herts.—High-rd., a freehold residence 1,000
High-rd., two freehold houses and cottage, r. 49*l.* 15s. 760
High-rd., three freehold cottages 630

By HUMBERT & FLINT (at Watford).

Watford, Herts.—7 and 9, Villiers-rd., f., r. 50*l.*... 690
1 and 3, Clifton-rd., f. 625

By BARKER, CATHIE, & FINCH (at Masons' Hall Tavern).

Westminster.—Francis-st., The Windsor Castle p.-h., u.t. 38¼ yrs., r. 150*l.*, with goodwill.... 14,150

February 13.—By ANDREWS, HOLLAND, & HITCH.

Chelsea.—310 to 320 (even), King's-rd., and 1 to 10, Caroline-buildings, u.t. 5 and 4¾ yrs., g.r. 34*l.* 18s. 885
9, Milner-st., u.t. 43 yrs., g.r. 9*l.*, r. 50*l.* 495
2, Rawlings-st., u.t. 42 yrs., g.r. 8*l.*, r. 65*l.* .. 600

By F. J. BISLEY & SONS.

Bermondsey.—165 and 167, St. James'-rd., u.t. 33 yrs., g.r. 7*l.* 470
Rotherhithe.—52, 54, and 56, Abbeyfield-rd., u.t. 54 yrs., g.r. 12*l.* 790

By W. A. BLAKEMORE.

Hoxton.—46A, Baring-st., with stabling, workshops, and yard, u.t. 31½ yrs., g.r. 4*l.* 10s., r. 50*l.* 475
Islington.—125, Graham-st., u.t. 36 yrs., g.r. 6*l.* 10s., r. 30*l.* 220
East Ham.—9, Forsyth-ter., f., r. 35*l.* 605
Bermondsey.—297, 299, 301, and 303, Weston-st., u.t. 76 yrs., g.r. 30*l.* 1,825

By FAREBROTHER, ELLIS, & CO.

Regent's Park.—44, 46, and 48, Osnaburgh-st., u.t. 13½ yrs., g.r. 165*l.*, r. 430*l.* 1,000
Lambeth.—5 and 6, Burdett-st., area 1,600 ft., f... 640

By MIDDLETON & CRACKNELL.

Hampstead.—21 and 23, Fleet-rd., u.t. 50 yrs., g.r. 13*l.*, r. 84*l.* 825

February 14.—By BEALE & CAPPS.

Notting Hill.—54, St. Charles'-sq., u.t. 71¼ yrs., g.r. 10*l.*, e.r. 60*l.* 525

By G. ERNEST CLARKE.

East Ham.—92, 94, and 96, St. Bernard's-rd., u.t. 96 yrs., g.r. 12*l.* 12s. 445

By DUNCAN & KIMPTON.

Islington.—5, 6, and 7, Ann-st., u.t. 26½ yrs., g.r. 12*l.* 12s., r. 111*l.* 1,020
Holloway.—3, Ashbrook-rd., u.t. 74 yrs., g.r. 4*l.* 15s., r. 30*l.* 385
Romford, Essex.—One-fifth share of 38 and 40, Market-place, f., r. 70*l.* 395

By LOUND & HOWITT.

Clapton.—28 and 30, Elderfield-rd., f., r 58*l.* 950
Camden Town.—James-st., l.g.r. 170*l.*, u.t. 20 yrs., g.r. 100*l.* 750

By C. C. & T. MOORE.

Leytonstone.—High Stone, Forest Lea, f., e.r. 80*l.* 1,620
Mile End.—53 to 61 (odd), Cephas-st., u.t. 29 yrs., g.r. 15*l.*, r 170*l.* 1,565
Clapton.—50, Maury-rd., u.t. 77 yrs., g.r. 6*l.* 10s., e.r. 42*l.* 405
Bethnal Green.—26, Elwin-st., u.t. 21¼ yrs., g.r. 4*l.* 4s. 160

February 15.—By Messrs. COBB.

Cranbrook, Kent.—The Bull Hotel, area 14,056 ft., f. 2,000

By G. HEAD & CO.

Paddington.—43, Westbourne Park-cres., u.t. 59¼ yrs., g.r. 8*l.*, r. 45*l.* 400
Manor Park.—935, Romford-rd., f., e.r. 70*l.* 1,025

By A. A. HOLLINGSWORTH.

Dalston.—2, Ritson-rd., u.t. 50½ yrs., g.r. 5*l.*, r. 35*l.* 385
Bow.—Old Ford-rd., f.g.r.'s 10*l.*, reversion in 5½ yrs. 540

By VENTOM, BULL, & COOPER.

Camberwell.—21, Benhill-rd., u.t. 71½ yrs., g.r. 6*l.* 6s. 375

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; e.r. for estimated rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; yd. for yard.

COMPETITIONS, CONTRACTS, AND PUBLIC APPOINTMENTS.

(For some Contracts, &c., still open, but not included in this List, see previous issues.)

COMPETITIONS.

Nature of Work.	By whom Advertised.	Premiums.	Designs to be delivered
*Public Library	Keighley Corporation	50*l.*, 30*l.* and 20*l.*	April 30

CONTRACTS.

Nature of Work or Materials.	By whom Required.	Forms of Tender, &c., Supplied by	Tenders to be delivered
Public Conveniences, &c., Marine-parade	Weston-super-Mare U.D.C.	H. Nettleton, Surveyor, Town Hall, Weston-super-Mare	Feb. 26
Extension of Water Main	Ipswich Burial Board	Clerk, Board's Offices, Ipswich	do.
Fireclay Retorts, Firebricks, &c.	Barrow-in-Furness Corporation	Manager, Gas Offices, Town Hall	do.
Granite Road Metal (2,000 tons)	Exmouth U.D.C	W. D. Harding, Surveyor, Exmouth	do.
*Road Widening	Willesden District Council	Engineer, Public Offices, Dyne-road, Kilburn, N.W.	do.
*Works and Materials	Hampstead Borough Council	Borough Surveyor, Town Hall, Haverstock Hill, N.W.	Feb. 27
Office Buildings, Bamford, Sheffield	Derwent Valley Water Board	E. Sandeman, Engineer, Bamford, Sheffield	do.
Enclosing Destructor Buildings, Whitehall Field	Ramsgate Corporation	T. G. Taylor, Borough Surveyor, Albion House, Ramsgate	do.
*Making-up Roads	Woolwich Corporation	Borough Engineer, Council's Offices, Maxey-road, Plumstead	Feb. 28
Septic Tanks, Filters, &c	Yeovil (Somerset) Corporation	W. K. L. Armitage, Surveyor, Municipal Offices, Yeovil	do.
Railings and Fixing, Armley Park	Leeds Corporation	City Engineer, Municipal Buildings, Leeds	do.
Boundary Wall, Armley Park	do.	do.	do.
Banking Premises, Middlesbrough	Yorkshire Banking Company	Bedford & Kitson, Architects, Greek-street Chambers, Leeds	do.
Drainage Works	Shepton Mallet Guardians	W. Phelps, Civil Engineer, Council Offices, Shepton Mallet	do.
*Works and Materials	Hackney Borough Council	Borough Engineer, Town Hall, Hackney	do.
Street Works, Vicker-grove, &c.	Withington (Lancs) U.D.C.	A H. Mountain, Civil Engineer, Town Hall, Withington	Mar. 1
Heating and Ventilating Works at Guildhall	Swansea Corporation	G. Bell, Borough Surveyor, 13, Somerset-place, Swansea	do.
Timber Protection Wall (1,780 yards)	Lowestoft Town Council	G. M. Hamby, Civil Engineer, Town Hall, Lowestoft	Mar. 2
Tanks, Pipes, &c., at Workhouse	Romsey (Hants) Guardians	J. Allsop, The Abbey, Romsey	do.
Offices, Fire Station, &c., South-street	Farnham U.D.C.	P. Watson, Architect, 4, Adam-street, Adelphi, W.C	Mar. 4
Additions to Chapel, Aberdare		Rev. G. Jones, Bryngafel, Trecynon, Aberdare	do.
School, Pontnewynydd, near Pontypool	Trevethin School Board	Lansdowne & Griggs, Architects, Newport, Mon.	do.
*Underground Convenience	Paddington Borough Council	Surveyor's Department, Town Hall, Paddington	do.
*Granite	Leyton U.D.C.	Surveyor, Town Hall, Leyton	Mar. 5
*Making-up Roads	Wandsworth Borough Council	Council House, East Hill, Wandsworth	do.
*Maintenance and Repair of Main Roads	Kent County Council	County Surveyor, 86, Week-street, Maidstone	do.
*Wood Paving	Tottenham U.D.C.	Engineer, 712, High-road, Tottenham	do.
*Broken Granite	Middlesex County Council	H. T. Wakelam, Guildhall, Westminster	do.
*Guernsey Granite	do.	do.	do.
*Boundary Wall	Fulham Borough Council	Borough Surveyor, Town Hall, Walham Green, S.W.	Mar. 6
Pipe Sewers, &c., near Sheffield	Wortley R.D.C.	G. E. Beaumont, Civil Engineer, Grenoside, near Sheffield	do.
*Hydraulic Lift	Manchester Corporation	C. Nickson, Town Hall, Manchester	Mar. 7
Rectory Buildings, Downpatrick		J. A. McConnell, Vestry Office, Downpatrick	do.
*Sewerage Works	South Stoneham R.D.C.	F. Wentworth-Sheilds, 1, Cranbury-road, Southampton	do.
*Council Chamber, &c.	Beckenham U.D.C.	Council Offices, Beckenham, Kent	Mar. 11
*Superstructure of Avonbank Electricity Works	Bristol Electrical Committee	Secretary, Electricity Department, Temple Back, Bristol	Mar. 12
Showyard Buildings, &c., Evesham	Hereford. & Worcester. Agric. Soc.	A. Edwards, Corn Exchange Offices, Leominster	Mar. 13
Sewerage Works	Rugeley (Staffs) U.D.C.	Pritchard & Co., Engineers, 37, Waterloo-street, Birmingham	Mar. 16
*School at Raynham-road	Edmonton School Board	See Advertisement	Mar. 19
Widening Gallows Inn Bridge, near Ilkeston	Derbyshire County Council	J. Somes Storey, Surveyor, County Offices, Derby	Mar. 20
*Pipe Sewer at New Eltham		Logsdail & Beale's, New Eltham, S.E.	No date
Streets, Sewers, &c., Bigrigg, Cumberland		W. Carmichael, Architect, Parton, Whitehaven	do.
Electrical Works, Hayes		British Electric Transformer Manufac. Co., Ltd., Woodfield-rd., W	do.
Colliery Workshop, Leeds		Brooks & Pickup, Pontefract-lane, Leeds	do.
Restaurant and Hotel, Dovercourt, Essex	Mr. G. Inward	J. W. Start, Architect, Colchester	do.
House, Sherburn-in-Elmet, Yorks.	Miss Clayton	J. M. Fawcett & Son, Architects, 26, Albion-street, Leeds	do.
Sinking two Shafts, Siddick, near Workington		Mr. Morrison, St. Helens Colliery, Siddick, near Workington	do.
School, Scaling, Easington, Durham		T. A. Welford, Easington School Board, Scaling, Loftus, R.S.O.	do.
Villas, Phillipsville Estate, Middlesbrough		A. F. Newsome, Architect, Albert-road, Middlesbrough	do.
Drainage Works, Dearnley	Rochdale Guardians	Radcliffe & Co., 78. King-street, Manchester	do.
Granite Road Metal (10,000 tons)	Gainsborough R.D.C.	R. Maxwell, Surveyor, Lea-road, Gainsborough	do.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
Assistant Sewer Surveyor	Birkenhead Corporation	110*l.* per annum	Feb. 27
Surveyor, &c	Northallerton U.D.C.	110*l.* per annum	do.
*Clerk of Works	Brentford Union	4*l.* 4s. per week	do.
*Architectural Draughtsman	Bury Tramways Committee		Feb. 28
Sanitary Inspector	Swindon Corporation	120*l.* per annum	do.
*Clerk of Works	Fylde, Preston, &c. Hospital Com.	3*l.* 3s. per week	Mar. 4
*Assistant Lecturer	Portsmouth Technical Institute	125*l.* per annum	No date

Those marked with an asterisk (*) are advertised in this Number. *Competitions, p.* iv. *Contracts, pp.* iv. vi. viii. x. *&* xxi. *Public Appointments, pp.* xviii. *&* xxi.

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

	£	s.	d.			
Hard Stocks	1	15	0	per 1,000	alongside,	in river.
Rough Stocks and Grizzles	1	12	0	,,	,,	,,
Smooth Bright Facing Stocks	2	18	0	,,	,,	,,
Shippers	2	8	0	,,	,,	,,
Flettons	1	9	0	,,	,,	,,
Red Wire Cuts	1	15	6	,,	,,	,,
Best Fareham Red	3	11	6	,,	,,	,,
Best Red pressed Ruabon Facing	5	5	0	,,	,,	,,
Best Blue Pressed Staffordshire	4	7	0	,,	,,	,,
Do., Bullnose	4	12	0	,,	,,	,,
Best Stourbridge Fire Bricks	4	4	6	,,	,,	,,

PRICES CURRENT (*Continued*).

BRICKS, &c.

	£	s.	d.			
GLAZED BRICKS.						
Best White and Ivory Glazed Stretchers	13	0	0	per 1,000	alongside	in river.
Headers	12	0	0	,,	,,	,,
Quoins, Bullnose, and Flats	17	0	0	,,	,,	,,
Double Stretchers	19	0	0	,,	,,	,,
Double Headers	16	0	0	,,	,,	,,
One Side and two Ends	19	0	0	,,	,,	,,
Two Sides and one End	20	0	0	,,	,,	,,
Splays, Chamfered, Squints	20	0	0	,,	,,	,,
Best Dipped Salt Glazed Stretchers and Headers	12	0	0	,,	,,	,,
Quoins, Bullnose, and Flats	14	0	0	,,	,,	,,

PRICES CURRENT (*Continued*).

BRICKS, &c.

	£	s.	d.			
Double Stretchers	15	0	0	per 1,000	alongside	in river
Double Headers	14	0	0	,,	,,	,,
One Side and two Ends	15	0	0	,,	,,	,,
Two Sides and one End	15	0	0	,,	,,	,,
plays, Chamfered, Squints	14	0	0	,,	,,	
Seconds Quality White and Dipped Salt Glazed	2	0	0	,,	less than best	

	£	s.	d.		
Thames and Pit Sand		7	6	per yard,	delivered.
Thames Ballast		6	3	,,	,,
Best Portland Cement	38	0		per ton	,,
Best Ground Blue Lias Lime	25	6		,,	,,

NOTE.—The cement and lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 13s. 6d. per yard, delivered
Stourbridge Fire-clay in sacks, 32s. 6d. per ton at rly. dpt.

PRICES CURRENT (*Continued*).

STONE.

	s. d.	
Ancaster in blocks	2 0	per ft. cube, deld. rly. depôt.
Bath ,, ...	1 7	,, ,,
Farleigh Down Bath ..	1 8	,, ,,
Beer in blocks	1 6½	,, ,,
Grinshill ,, ...	1 10	,, ,,
Brown Portland in blocks	2 2	,, ,,
Darley Dale in blocks..	2 1½	,, ,,
Red Corsehill ,,	2 5	,, ,,
Red Mansfield ,,	2 4½	,, ,,
Hard York in blocks ..	2 10	,, ,,
Hard York 6 in. sawn both sides landings, to sizes (under 40 ft. sup.)	s. d. 2 8	per ft. super. at rly. depôt.
,, ,, 6 in. Rubbed Ditto..	3 0	,, ,,
,, ,, 3 in. sawn both sides slabs (random sizes)	1 3	,, ,,
,, ,, 3 in. self-faced Ditto	0 9½	,, ,,

SLATES.

in. in.	£ s. d.	
20×10 best blue Bangor..	11 5 0	per 1000 of 1200 at rly. dep.
,, best seconds ,,	10 15 0	,, ,,
16× 8 best ,,	6 2 6	,, ,,
20×10 best blue Portmadoc	10 18 0	,, ,,
16× 8 best blue Portmadoc	6 0 0	,, ,,
20×10 best Eureka unfading green.....	11 2 6	,, ,,
16× 8 ,, ,,	6 15 0	,, ,,
20×10 Permanent green	10 0 0	,, ,,
16× 8 ,, ,,	5 12 6	,, ,,
		,, ,,

TILES.

	s. d.	
Best plain red roofing tiles..	41 6	per 1,000 at rly. depôt.
Hip and valley tiles....	3 7	per doz.
Best Broseley tiles	48 6	per 1,000 ,, ,,
Hip and valley tiles....	4 0	per doz. ,, ,,
Best Ruabon Red, brown or brindled Do. (Edwards)	57 6	per 1,000 ,, ,,
Do. ornamental Do.	60 0	,, ,, ,,
Hip tiles.....	4 0	per doz. ,, ,,
Valley tiles.....	3 9	,, ,, ,,
Best Red or Mottled Staffordshire Do. (Peakes).	50 9	per 1,000 ,, ,,
Hip tiles	4 1	per doz. ,, ,,
Valley tiles.....	3 8	,, ,, ,,

WOOD.

BUILDING WOOD.—YELLOW.

	At per standard. £ s. d.	£ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9in. and 11 in.	16 10 0	18 0 0
Deals: best 3 by 9	14 10 0	15 10 0
Battens: best 2½ in. by 7 in. and 8 in. and 3 in. by 7 in. and 8 in.....	12 10 0	13 10 0
Battens: best 2½ by 6 and 3 by 6 ..	0 10 0	less than 7 in. and 8 in.
Deals: seconds	1 0 0	less than best
Battens: seconds.....	0 10 0	,, ,, ,,

Fir timber: Best middling Danzig or Memel (average specification) ..... At per load of 50 ft.

Seconds	4 10 0	5 0 0	
Small timber (8 in. to 10 in.)	4 5 0	4 10 0	
Swedish balks.....	3 12 6	3 15 0	
Pitch pine timber (35 ft. average)..	2 15 0	3 0 0	
	4 0 0	4 10 0	

JOINERS' WOOD. At per standard.

White Sea: First yellow deals, 3 in. by 11 in.....	27 10 0	28 10 0
3 in. by 9 in.	24 0 0	25 0 0
Battens, 2½ in. and 3 in. by 7 in.	20 0 0	21 0 0
Second yellow deals, 3 in. by 11 in.	22 10 0	24 0 0
,, ,, 3 in. by 9 in.	20 0 0	21 0 0
Battens, 2½ in. and 3 in. by 7 in.	16 10 0	18 0 0
Third yellow deals, 3 in. by 11 in. and 9 in.	16 10 0	18 0 0
Battens, 2½ in. and 3 in. by 7 in.	13 10 0	14 10 0
Petersburg: first yellow deals, 3 in. by 11 in.	25 0 0	26 0 0
Do. 3 in. by 9 in.	22 0 0	23 0 0
Battens.....	16 10 0	17 10 0
Second yellow deals, 3 in. by 11 in.....	18 10 0	20 0 0
Do. 3 in. by 9 in.	17 0 0	18 0 0
Battens.....	14 0 0	14 10 0
Third yellow deals, 3 in. by 11 in.....	15 0 0	16 10 0
Do. 3 in. by 9 in.	14 0 0	14 10 0
Battens.....	12 10 0	13 10 0
White Sea and Petersburg:—		
First white deals, 3 in. by 11 in..	15 10 0	16 10 0
,, ,, ,, 3 in. by 9 in. ..	14 0 0	15 0 0
Battens.....	12 10 0	13 10 0
Second white deals 3 in. by 11 in.	14 0 0	15 0 0
,, ,, ,, 3 in. by 9 in.	13 0 0	14 0 0
Pitch pine: deals	11 0 0	12 0 0
Under 2 in. thick extra	16 0 0	18 0 0
Yellow Pine—	0 10 0	1 0 0
First, regular sizes	30 0 0	33 0 0
Broads (12 in. and up)	2 0 0	more.
Oddments	22 0 0	24 0 0
Seconds, regular sizes	24 10 0	26 10 0
Yellow Pine Oddments	20 0 0	22 0 0
Kauri Pine—		
Planks, per ft. cube	0 3 6	0 4 6
Dantzig and Stettin Oak Logs—		
Large, per ft. cube	0 2 6	0 2 8
Small ,, ,, ...	0 2 4	0 2 7
Wainscot Oak Logs, per ft. cube ..	0 5 0	0 5 6
Dry Wainscot Oak, per ft. sup. as inch	0 0 8	0 0 9
,, ,, do.	0 0 7	- - -
Dry Mahogany—		
Honduras, Tabasco, per ft. sup. as inch	0 0 9	0 0 11
Selected, Figury, per ft. sup. as inch	0 1 6	0 2 0

PRICES CURRENT (*Continued*).

WOOD.

	At per standard. £ s. d.	£ s. d.
Dry Walnut, American, per ft. sup. as inch.....	0 0 10	0 1 0
Teak, per load	16 0 0	20 0 0
American Whitewood Planks—		
Per ft. cube.....	0 2 3	0 3 0

JOISTS, GIRDERS, &c.

	In London, or delivered to Railway Vans, per ton. £ s. d.	£ s. d.
Rolled Steel Joists, ordinary sections	8 0 0	9 0 0
Compound Girders ,, ,,	9 10 0	10 15 0
Angles, Tees and Channels, ordinary sections	9 12 6	11 12 6
Flitch Plates	10 0 0	10 15 0
Cast Iron Columns and Stanchions, including ordinary patterns	8 5 0	10 0 0

METALS.

	Per ton, in London. £ s. d.	£ s. d.
IRON.—		
Common Bars.....	9 10 0	- - -
Staffordshire Crown Bars, good merchant quality	9 15 0	10 0 0
Staffordshire "Marked Bars" ..	11 10 0	- - -
Mild Steel Bars.....	9 10 0	10 10 0
Hoop Iron, basis price.....	10 5 0	10 15 0
,, ,, galvanised	16 0 0	- - -
(* And upwards, according to size and gauge.)		
Sheet Iron, Black.—		
Ordinary sizes to 20 g.	10 15 0	- - -
,, ,, to 24 g.	11 15 0	- - -
,, ,, to 26 g.	13 5 0	- - -
Sheet Iron, Galvanised, flat, ordinary quality.—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.....	13 0 0	- - -
,, ,, 22 g. and 24 g.	13 15 0	- - -
,, ,, 26 g.....	15 10 0	- - -
Sheet Iron, galvanised, flat, best quality.—		
Ordinary sizes to 20 g.....	17 0 0	- - -
,, ,, 22 g. and 24 g.	17 10 0	- - -
,, ,, 26 g.....	19 0 0	- - -
Galvanised Corrugated Sheets.—		
Ordinary sizes, 6 ft. to 8 ft. 20 g.	13 0 0	- - -
,, ,, 22 g. and 24 g.	13 10 0	- - -
,, ,, 26 g.	14 0 0	1 10 0
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. by 20 g. and thicker ..	13 0 0	- - -
,, ,, 22 g. and 24 g.	14 0 0	- - -
,, ,, 26 g.	15 0 0	- - -
Cut nails, 3 in. to 6 in..... (Under 3 in. usual trade extras.)	11 10 0	- - -
LEAD—Sheet, English, 3 lbs. & up.	18 0 0	- - -
Pipe in coils	18 10 0	- - -
Soil Pipe..	21 0 0	- - -
ZINC—Sheet—		
Vieille Montagne ..... ton	6 0 0	- - -
Silesian..... ton	25 0 0	- - -
COPPER—		
Strong Sheet..... per lb.	0 1 1	- - -
Thin ..... ,,	0 1 1	- - -
Copper nails ..... ,,	0 1 3	- - -
BRASS—	0 1 2	- - -
Strong Sheet..... ,,	0 0 11	- - -
Thin ,, ... ,,	0 1 1	- - -
TIN—English Ingots ..... ,,	0 1 4½	- - -
SOLDER—Plumbers' ..... ,,	0 0 8½	- - -
Tinmen's ..... ,,	0 0 9	- - -
Blowpipe ..... ,,	0 0 10	- - -

ENGLISH SHEET GLASS IN CRATES.

15 oz. thirds	2¾d. per ft. delivered.
,, fourths	2¾d. ,, ,,
21 oz. thirds	3¾d. ,, ,,
,, ,, fourths.....	3¾d. ,, ,,
26 oz. thirds	4¼d. ,, ,,
,, ,, fourths	4¼d. ,, ,,
32 oz. thirds	4¾d. ,, ,,
,, ,, fourths	5¾d. ,, ,,
Fluted sheet, 15 oz.....	3¼d. ,, ,,
,, ,, 21 ,, ...	4¼d. ,, ,,
½ Hartley's Rolled Plate.....	3d. ,, ,,
⅓ ,, ,, ,, ...	3¾d. ,, ,,
¼ ,, ,, ,, ...	4d. ,, ,,

OILS, &c.

		£ s. d
Raw Linseed Oil in pipes.....	per gallon	0 2 6
,, ,, ,, in barrels	,,	0 2 5
,, ,, ,, in drums	,,	0 2 8
Boiled ,, ,, in pipes.....	,,	0 2 8
,, ,, ,, in barrels	,,	0 2 9
,, ,, ,, in drums	,,	0 2 11
Turpentine, in barrels	,,	0 2 7
,, in drums.....	,,	0 2 9
Genuine Ground English White Lead ...per ton		27 0 0
Red Lead, Dry.....	,,	25 10 0
Best Linseed Oil Putty.....	per cwt.	0 9 0
Stockholm Tar	per barrel	1 10 0

VARNISHES, &c.

	per gallon £ s. d
Fine Elastic Copal Varnish for outside work ..	0 16 6
Best Elastic Copal Varnish for outside work ..	1 0 0
Best Elastic Carriage Varnish for outside work	0 16 6
Best Hard Oak Varnish for inside work	0 10 6
Best Extra Hard Church Oak Varnish for inside work	0 16 0
Fine Hard Copal Varnish for inside work	0 10 6
Best Hard Copal Varnish for inside work	0 16 0
Best Hard Carriage Varnish for inside work....	1 0 0
Extra Pale Paper Varnish	0 16 0
Best Japan Gold Size	0 12 0
Best Black Japan	0 10 0
Oak and Mahogany Stain	0 16 0
Brunswick Black	0 9 0
Berlin Black	0 9 0
Knotting	0 15 0
Best French and Brush Polish	0 10 0
	10 0

TO CORRESPONDENTS.

CLERK OF WORKS (No space this week).—F.R.I.B.A. (We cannot publish letters which are sent without the name and address of the writer enclosed).—M. & F. (Amounts should have been stated).

NOTE.—The responsibility of signed articles, letters, and papers read at meetings, rests, of course, with the authors.

We cannot undertake to return rejected communications.

Letters or communications (beyond mere news items) which have been duplicated for other journals are NOT DESIRED.

We are compelled to decline pointing out books and giving addresses.

Any commission to a contributor to write an article is given subject to the approval of the article, when written, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

All communications regarding literary and artistic matters should be addressed to THE EDITOR; those relating to advertisements and other exclusively business matters should be addressed to THE PUBLISHER, and *not* to the Editor.

TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than 10 a.m. on Thursdays.* N.B.—We cannot publish tenders unless authenticated either by the architect or the building-owner; and we cannot publish announcements of tenders accepted unless the amount of the tender is given, nor any list in which the lowest tender is under £100, unless in some exceptional cases and for special reasons.]

* Denotes *accepted.* † Denotes *provisionally accepted.*

BURGESS HILL (Sussex).—For the erection of an isolation hospital, for the Cuckfield Urban District Council. Mr. J. T. Hine, architect, 35, Parliament-street, Westminster, S.W.:—

J. Brown	£12,100	Rowland Bros.	£10,279
Ockenden & Son ..	11,602	Potter Bros.	10,000
Thomas & Edge ...	11,577	R. Tonge	9,898
Langley & Sons....	10,949	S. Knight	9,802
Johnson & Co.	10,377	W. Wallis	9,741
Peerless, Dennis, & Co.	10,370	Field & Co.	9,570
Foster Bros.	10,293	Norman & Burt, Burgess Hill* ..	9,399
Cook & Son	10,284		

CHIPPENHAM.—For new house at Hardenhuish, for Captain M. Allfrey. Mr. Harold Brakspear, F.S.A., architect, Corsham. Quantities by Messrs. Pinks & Watson, Parliament Mansions, Victoria-street, S.W.:—

Hayward & Wooster	£9,427	R. Rudman, Chippenham*	£8,377
H. Hoskings	8,594		

DURHAM.—For the construction of 1,720 lineal yards of 9-in. pipe sewers, with manholes, ventilation shafts, flushing chamber, screening chamber, and the laying-out and fencing of 3 acres of land for sewage irrigation at Aldin Grange, in the parish of Broom, for the Durham Rural District Council. Mr. George Gregson, Surveyor to the Council, 38, Sadler-street, Durham:—

G. T. Manners	£1,776 0 0	J. G. Bradley	£1,496 19 6
P. Frater	1,696 0 0	John Carrick, Durham* ..	1,493 1 3
Robert Oliver	1,550 0 0	Wm. Garnet..	1,453 5 0
Thos. Skelton	1,544 7 11		
[Surveyor's estimate, £1,564.]			

GLASGOW.—For the erection of a hospital, Stobhill, Springburn (first section), for the Parish Council. Messrs. Thomson & Sandilands, architects, 241, West George-street, Glasgow:—

Masonry and Brickwork.—J. J. & P. M'Lachlan, Larbert* £72,089 0 0

Joinery.—Duncan Buchanan, London-road, Glasgow* 23,705 15 1

LONDON.—For new electricity station, Whiston-street, Haggerston, for the Metropolitan Borough of Shoreditch. Messrs. Kincaid, Waller, & Manville, engineers. Quantities by Mr. John Rider Hunt, Bridge House, 181, Queen-Victoria-street, E.C.:—

A. E. Symes	£20,300 0 0	Harris & Wardrop ..	£17,639 0 0
G. E. Todd..	19,919 0 0	C. Gray Hill	17,550 0 0
Foster Bros. .	19,735 0 0	Chessum & Sons	17,438 0 0
Dolman & Co.	18,950 0 0	Storrs, Sons, & Co.	17,299 0 0
F. G. Minter	18,349 0 0	Johnson & Sons, Leicester*	16,633 0 0
Wallace & Co, Ltd...	17,962 16 11		
Clift Ford ..	17,941 0 0		
Wall & Co...	17,742 0 0		

LONDON.—For the erection of The Perseverance, East Ham, E. Mr. Herbert Riches, architect, 3, Crooked-lane, King William-street, London, E.C. Quantities supplied:—

F. & T. Thorne	£4,350	Courtney & Fairbairn	£4,053
Todd & Co.	4,270	Sheffield Bros.*	3,925
Dearing & Son	4,205		

LONDON.—For the erection of the Lutheran Schools, Antill-road, Tottenham, N. Mr. Augustine Cadie Green, architect, 40, Bruce Castle-road, Tottenham, N.:—

A. Porter	£845 0	P. Hart	£719 0
J. Groves	795 0	Green & Boxall....	717 14
J. Stewart	785 0	William Easun, 155, Leighton-road, Kentish Town, N.W.*	560 0
J. Giles	735 0		
W. H. Howell	723 0		

WELLINGTON.—For business premises, Wellington, for Mr. H. Shepard. Messrs. Dalgleish & Dickens-Lewis, architects. Quantities by the architects:—

R. & J. Millington ...	£1,950	Price & Sons	£1,880
John Carver	1,898	A. Roper, Wellington*	1,798

[*See also next page.*

CROYDON (South).—For alterations and additions to the Surrey Drovers' Hotel, Selsdon-road, for Mr. A. G. Towler. Mr. D. Carmichael, architect, London :—

Whitehead & Co.	£2,065 0 0	Bulled & Son	£1,497 0 0
Smith & Sons	1,987 0 0	Umlandt & Nicholl....	1,440 0 0
Truett & Steel	1,634 0 0	Worsfold & Sons, Croydon*	1,329 0 0

(No quantities supplied.)

WHITLEY.—For alterations to Whitley Brow, for Mr. A. Murray Shirreff. Mr. Harold Brakspear, F.S.A., architect, Corsham :—

H. Hoskings	£730	Bigwood & Co., Melksham*	£624
R. Rudman	687		

LONDON SCHOOL BOARD TENDERS.

At the last meeting of the London School Board, the Works Committee submitted the following list of tenders. Mr. T. J. Bailey is the Board's Architect :—

* *Recommended for acceptance.*

ANERLEY COTTAGE HOME FOR THE DEAF.—Accommodation, 30 boys and 30 girls; total, 60. Consisting of two blocks of semi-detached cottages, each cottage comprising :—

Ground Floor.—Hall and playroom, dining-room, kitchen, scullery, pantry, &c.

First Floor.—Three dormitories for five children each, mothers'-room, bathroom, clothesroom, and water-closet.

Central Block.—School building.

Ground Floor.—Comprising hall (gymnasium), 60 ft. by 30 ft., six classrooms accommodating ten children each, boys' and girls' teachers' rooms, lavatories, and cloak and stockrooms.

First Floor.—Superintendent's and matron's rooms.

A manual training-room, 56 ft. by 22 ft., is provided in the boys' playground; enclosing, draining, and tar-paving playgrounds and forming terrace, &c. :—

C. Wall	£22,500	Lawrance & Sons	£20,607
Garrett & Son	22,174	Stimpson & Co.	20,570
B. E. Nightingale	21,850	Johnson & Co., Ltd.	19,958
F. & H. F. Higgs	21,469	Smith & Sons, Ltd.	19,916
Kirk & Randall	21,324	J. & C. Bowyer	19,695
E. Triggs	21,214	Holliday & Greenwood*	19,000
McCormick & Sons	20,998		
Spencer, Santo & Co., Ltd.	20,740		

BROADWATER-ROAD SITE.—Removing two iron buildings and appurtenances from the Rosendale-road Site, and re-erecting them upon this site. Also providing a new iron building complete, and two blocks of offices :—

T. Cruwys	£1,975	J. & W. T. Hunter	£1,725
W. Harbrow	1,744	Humphreys, Ltd.	1,611
Hawkins & Co.	1,725	Mitson & Co.*	1,563

DIVISIONAL OFFICES.—Supply of seven desks :—

	Each.		Each.
Educational Supply Association, Ltd.	£14 15 0	London School Furniture Co.	£8 10 0
H. Bouneau	14 5 0	Hammer & Co., Ltd.	8 0 0
Spencer & Co.	13 5 0	Wake & Dean, Ltd.*	6 15 0
J. H. W. Martin	12 18 6		
Lascelles & Co.	9 5 0		

GARRATT-LANE.—Special school for sixty children :—

C. Wall	£3,883	Lorden & Son	£3,595
J. & M. Patrick	3,849	J. Carmichael	3,592
O. Craske	3,667	Johnson & Co., Ltd.	3,465
Lathey Bros.	3,667	Stimpson & Co.*	3,377

"PORTLAND."—Constructing ventilating skylights in roof; dividing large room on second floor by a glazed partition; executing sundry alterations to old and providing new sanitary fittings: ventilating drains, and general repairs and cleaning and painting throughout :—

Densham & Sons	£1,580	T. L. Green	£1,389
F. Bull	1,550	Stevens Bros.	1,289
Williams & Son	1,484	Barrett & Power	1,222
G. Neal	1,477	Marchant & Hirst*	961

ROCHELLE-STREET.—Repairs to furniture.
KEETON'S-ROAD.—Repairs to furniture.
WEBB-STREET.—Overhauling desks.
BRITISH-STREET.—Repairs to furniture.

	Rochelle-street.	Keeton's road.	Webb-street.	British street.
	£ s. d.	£ s.	£ s. d.	£ s. d.
H. Bouneau	125 0 0	13 5	111 15 0	144 10 0
Bruce, Croom, & Co.	147 11 6	—	95 3 3	158 9 6
T. Cruwys	137 0 0	11 19	90 0 0	135 0 0
General Builders, Ltd.	149 0 0	—	—	—
Hammer & Co. Ltd.	125 0 0	10 10*	75 0 0	93 0 0
London School Furniture Co.	100 0 0*	12 10	65 0 0*	85 0 0*

SUMNER-AVENUE—(P.T. centre).—Raising a new story over top playground for the purpose of a science room :—

Lathey Bros	£1,798 0	Hooper & Son	£1,427 0
J. F. Ford	1,689 0	Bulled & Co.	1,373 0
Marsland & Sons	1,540 0	W. V. Goad	1,365 15
H. & G. Mallett	1,443 0	H. Line*	1,200 0

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Stevens Bros.	+ 25 ,, ,, ,,
Marchant & Hirst*	+ 25 ,, ,, ,,

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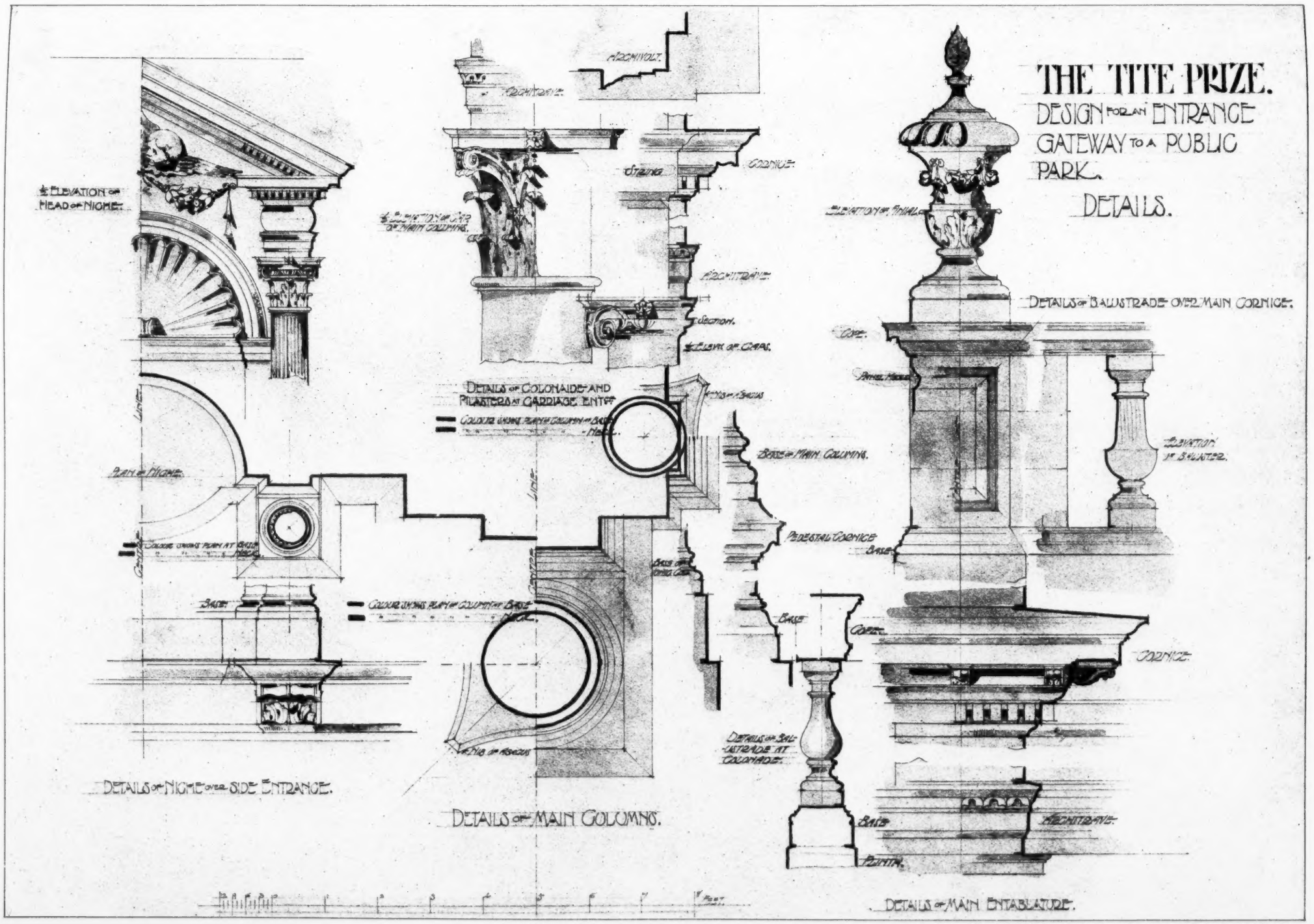
PERSPECTIVE VIEW.

Tite Prize Design, R.I.B.A., 1901



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DETAILS.

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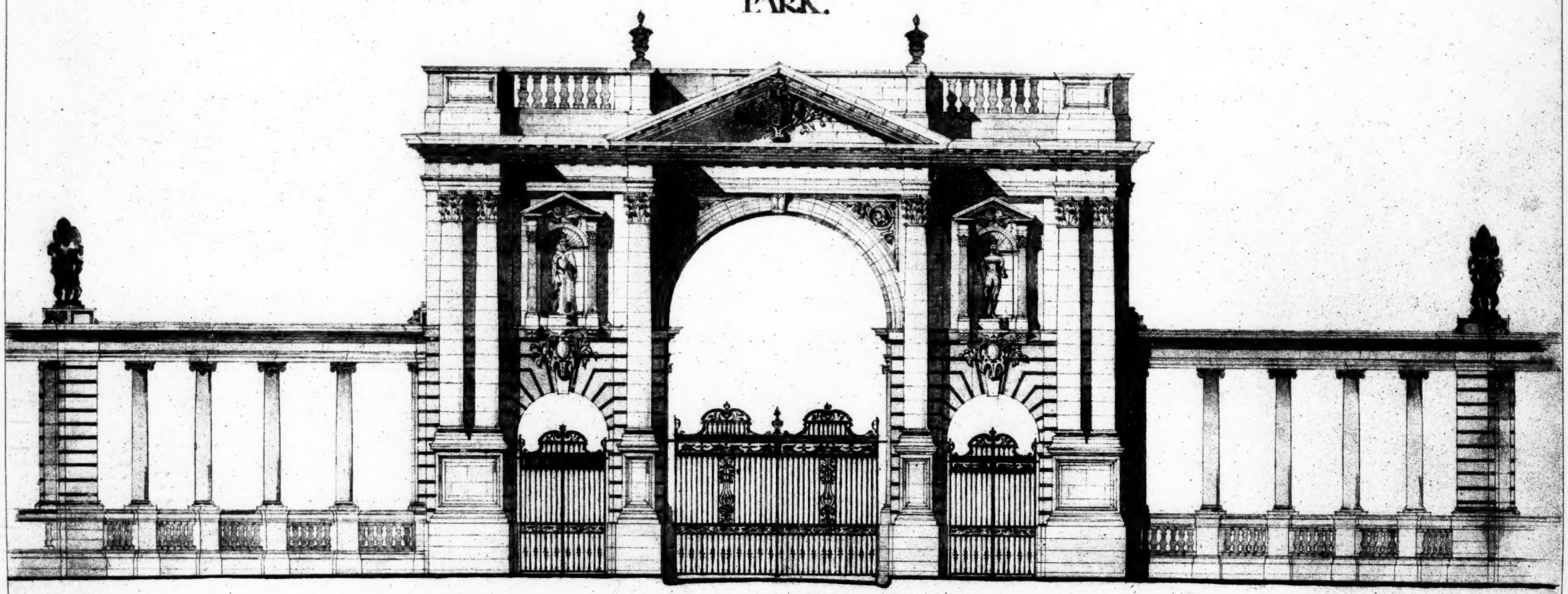

FRONT ELEVATION.

CORONA.

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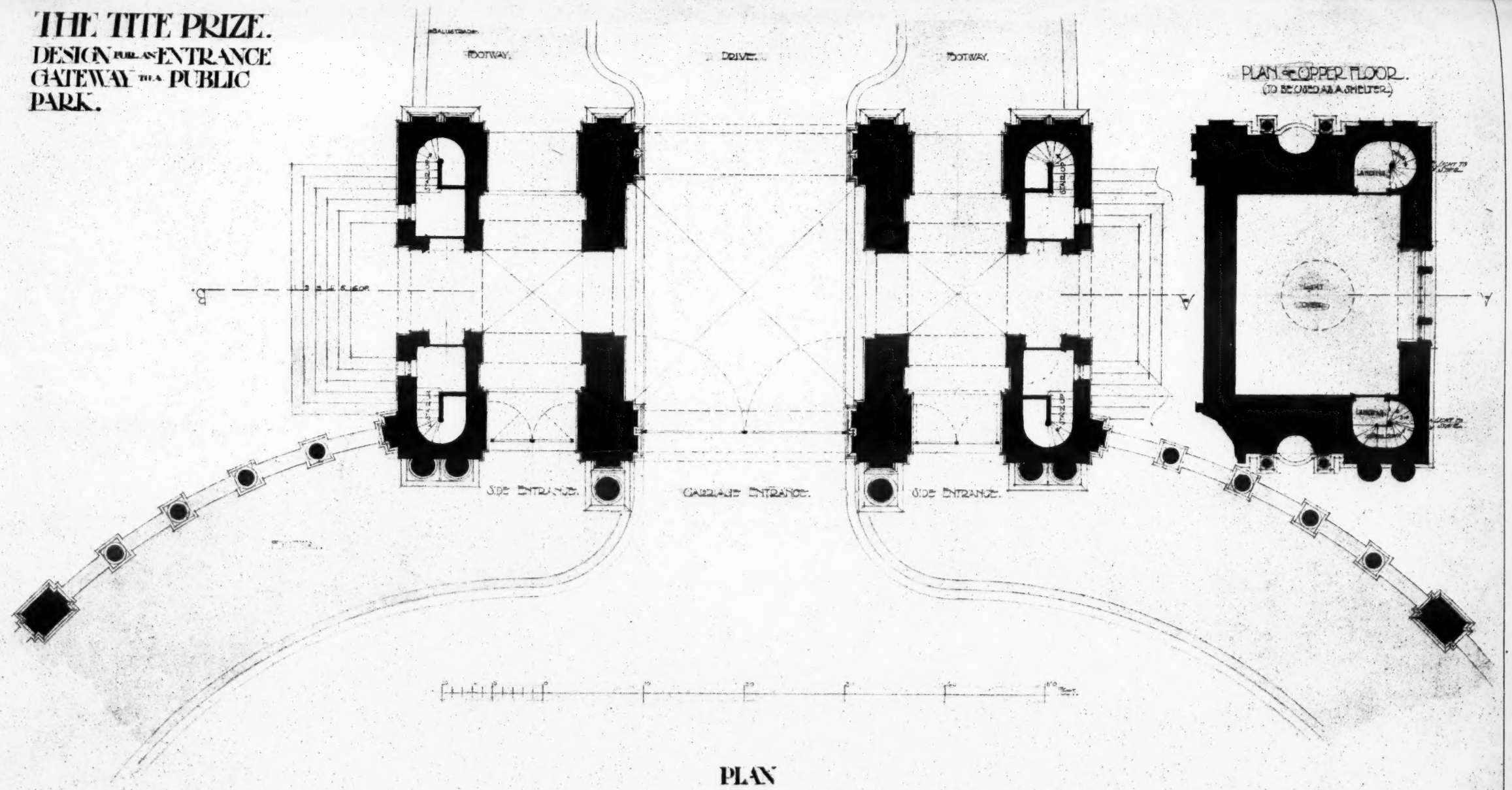

PLAN

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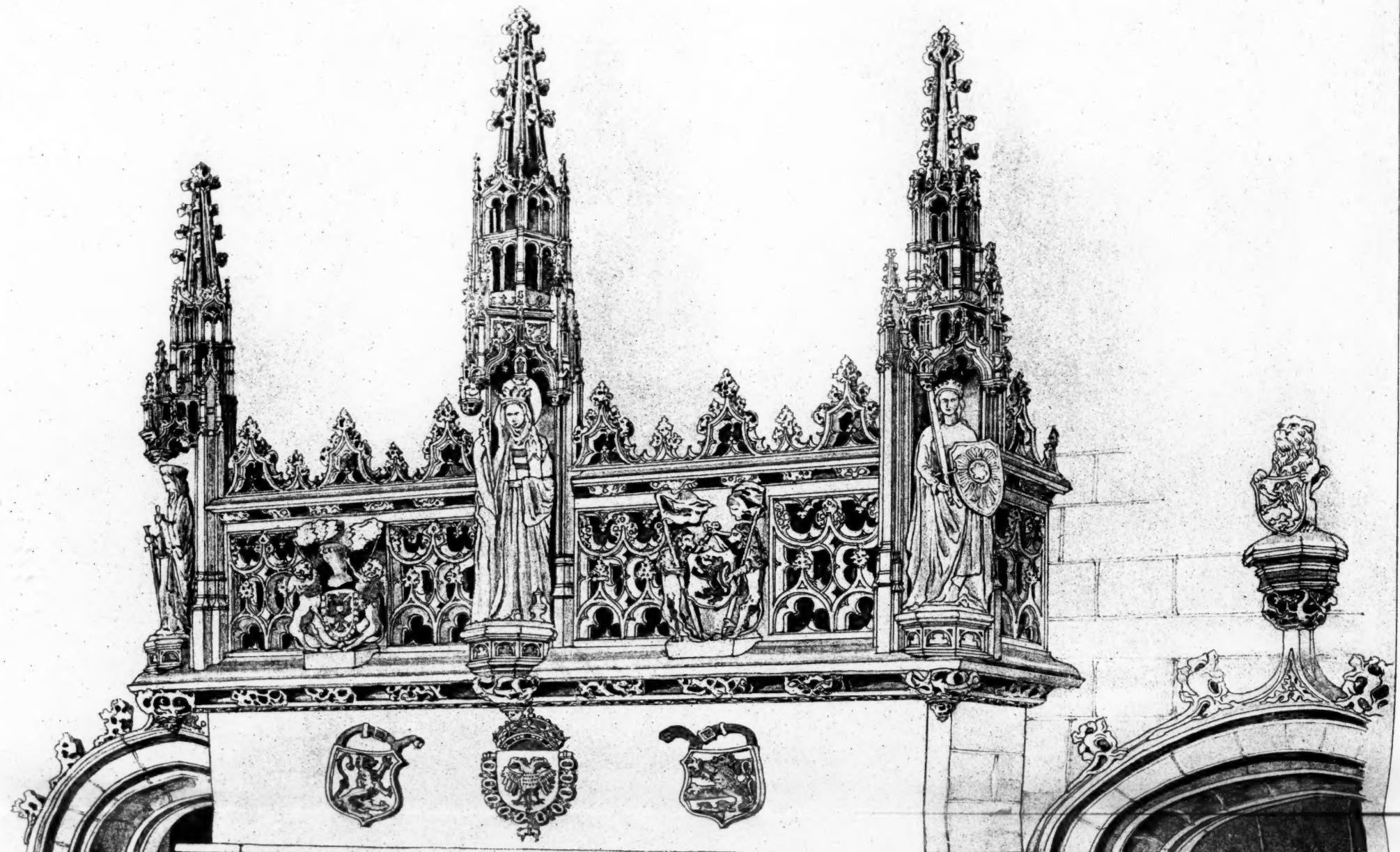
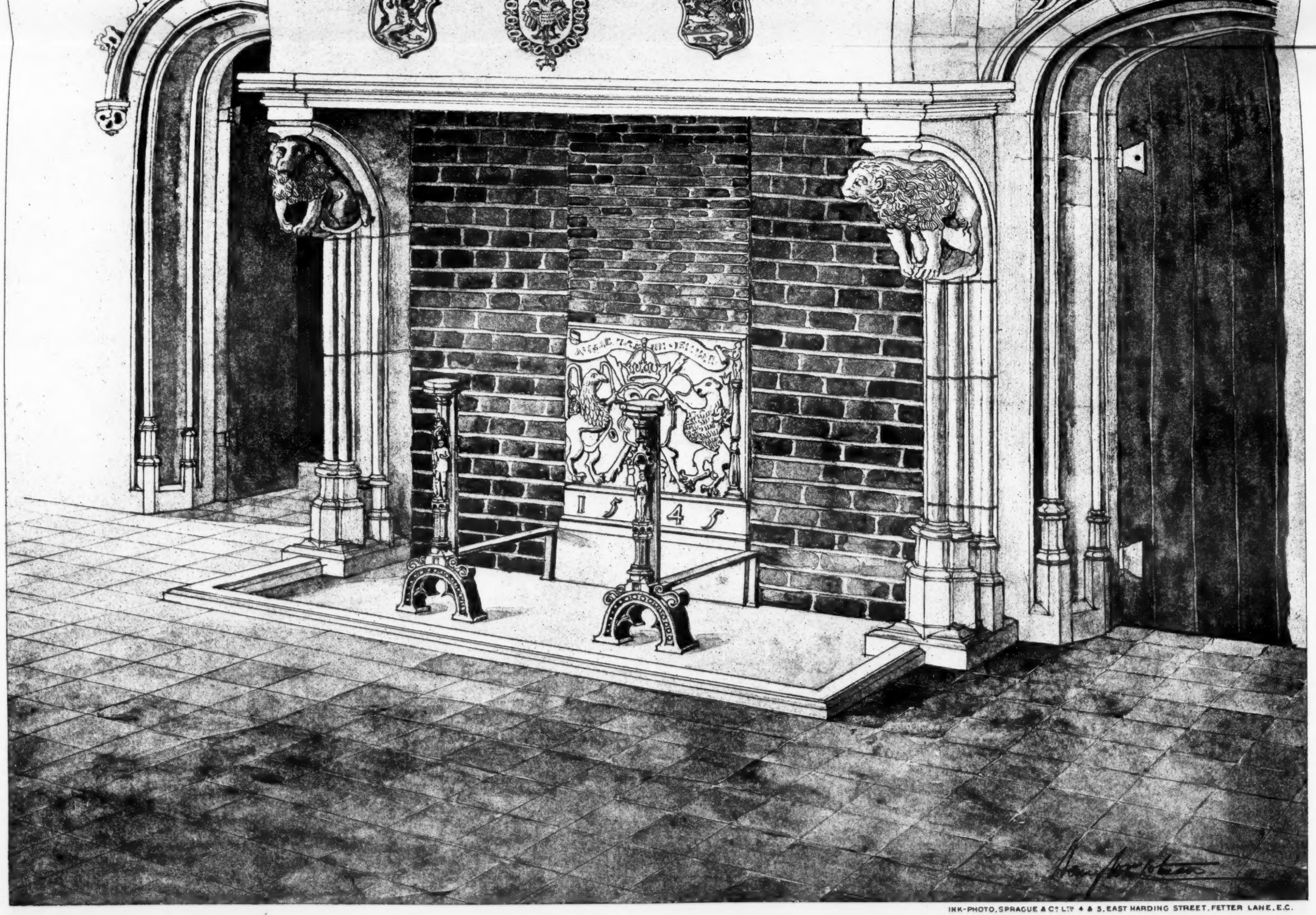
FRONT ELEVATION AND PLAN.

HOTEL-DE-VILLE, AUDENARDE:

FIREPLACE





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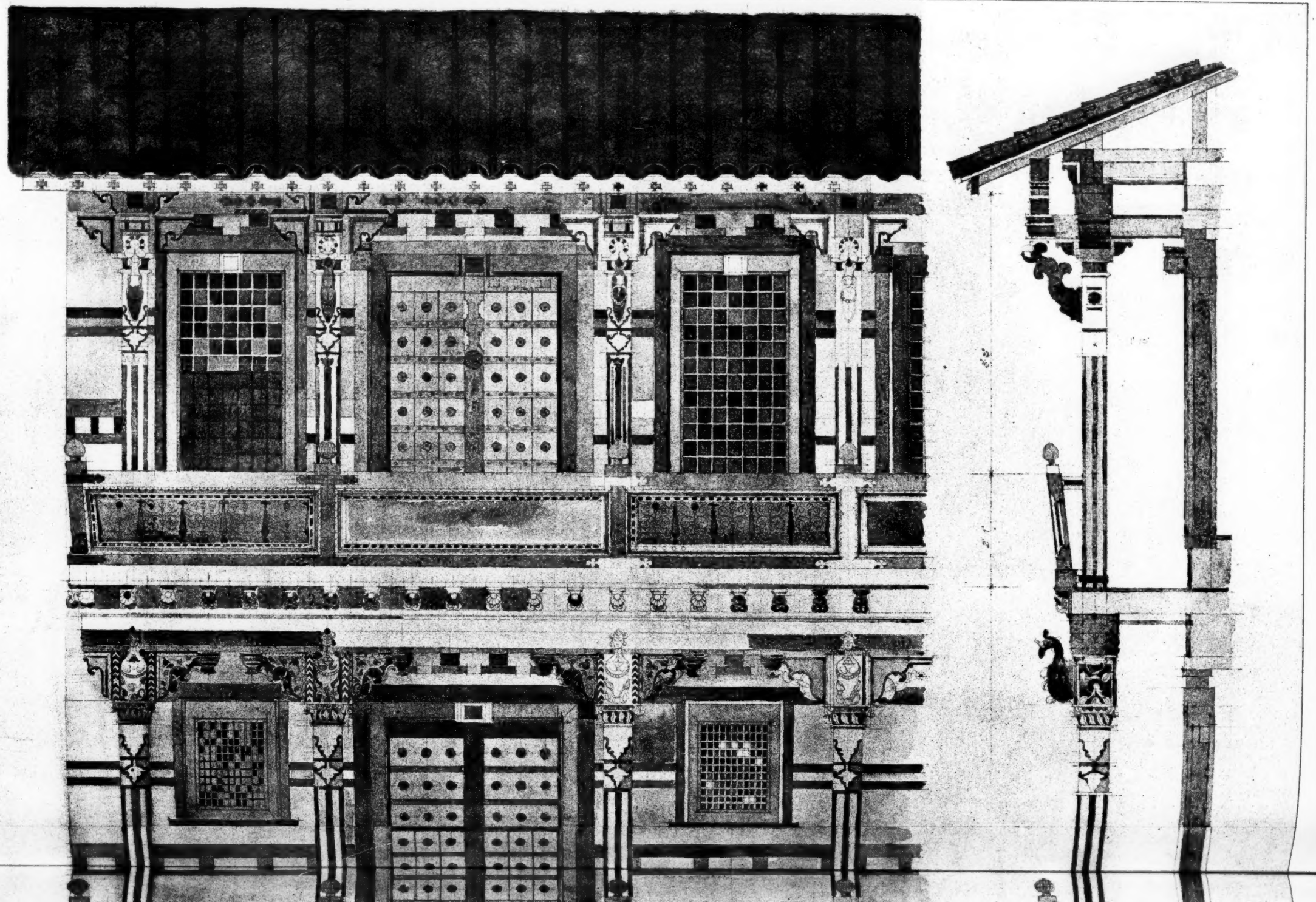

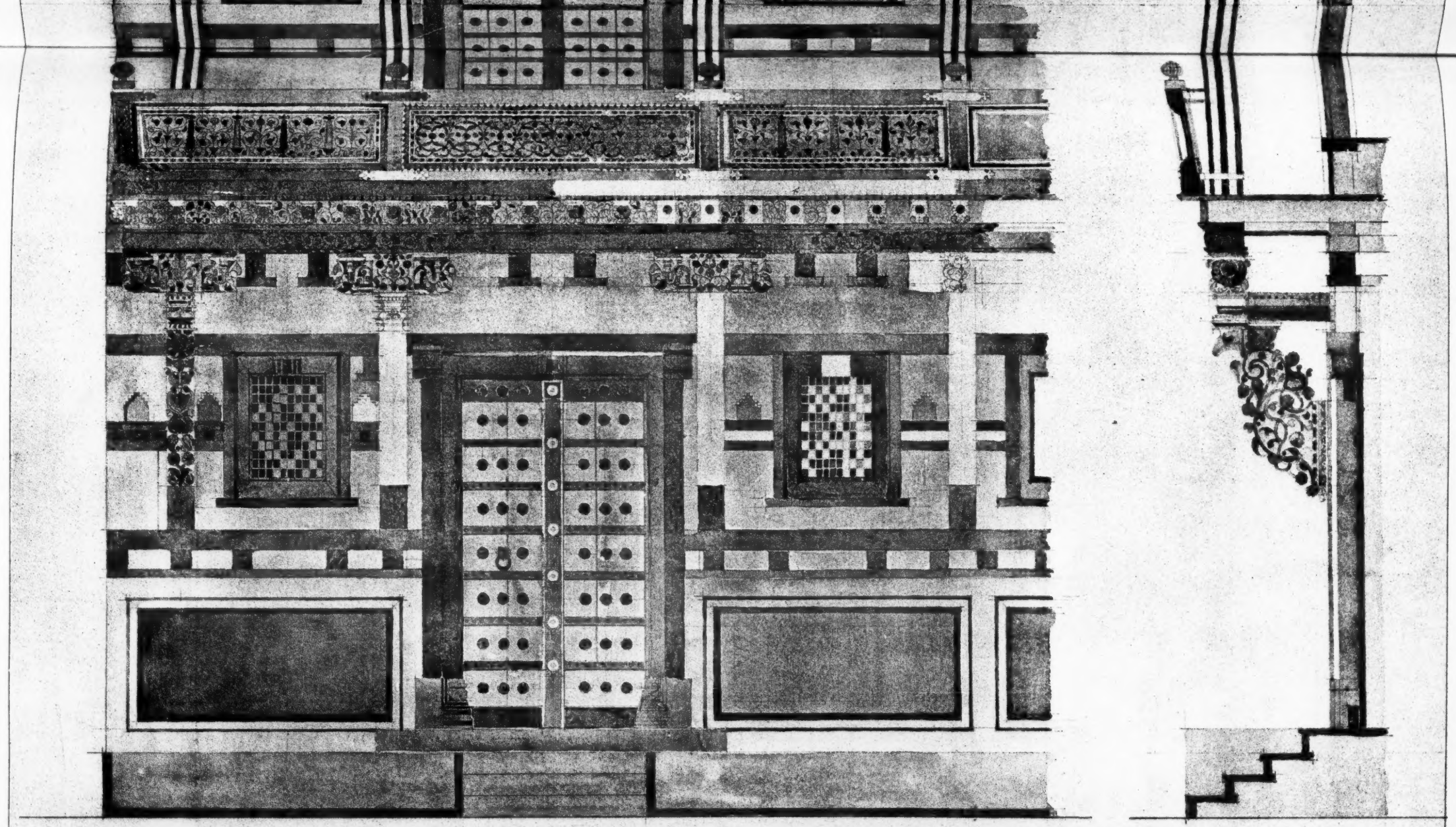

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